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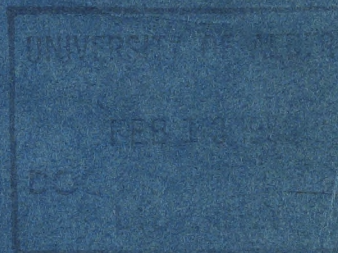
OF

THE BOARD OF GRAIN COMMISSIONERS

FOR CANADA

1913

PRINTED BY ORDER OF PARLIAMENT



OTTAWA

PRINTED BY C. H. PARMELEE, PRINTER TO THE KING'S MOST
EXCELLENT MAJESTY.

1913

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OFFICE OF BOARD OF GRAIN COMMISSIONERS FOR CANADA,
FORT WILLIAM, ONT., January 7, 1913.

Hon. GEO. E. FOSTER, M.P.,
Minister of Trade and Commerce,
Ottawa, Ont.

SIR,—We have the honour to submit the following report, as required by Section 14 of Chapter 2, George V., 'An Act Respecting Grain.'

We have the honour to be, sir,
Your obedient servants,

ROBERT MAGILL,
Chief Grain Commissioner.

W. D. STAPLES,
Grain Commissioner.

FRANK E. GIBBS,
Grain Commissioner.

CHAPTER 1.

THE BALANCE OF LAST YEAR'S CROP.

1. Tough, Damp and Wet Grain.

Owing to climatic conditions a considerable proportion of the crop of 1911-12 was graded as tough, damp and wet. Much of the tough grain was marketed without being dried, and during the winter of 1911-12 the drying capacity of Port Arthur and Fort William was fairly equal to the demand. When the warm weather came the damp and wet grain began to go out of condition. The Board watched closely to see whether the drying plants at Fort William and Port Arthur were able to dry all the grain that needed to be dried. It was not until the end of the first week of July that the quantity to be dried passed the drying capacity of the terminals. Owing to the multiplicity of grades, and owing also to the fact that in drying individual car lots were kept separate, the actual drying capacity of the terminals amounted to about 35,000 bushels per day, and on July 11 it was estimated that in the terminal elevators, and in cars in the yards, there was something over a million bushels of tough, damp and wet grain.

It was evident that much of this grain would become a total loss unless some way could be found to have it dried. Various alternative means of dealing with it were considered by the Board. One was to have cars of grain diverted from the West to Duluth. Another was to have cargoes of grain shipped from Fort William to Duluth. Another was to order the terminal elevators to take in the grain and keep elevating it to prevent its becoming worse, until it should be dried. Another was to import a drying plant, if this were possible.

Of these alternatives the Board considered the last one to be the best, if feasible, and immediately opened negotiations with the Armour Grain Company, Chicago, which company had recently built a floating dryer. A representative of the company had visited Winnipeg and Fort William in the month of February with the object of ascertaining whether the company could get business for the floating dryer in Canada. At that time, however, the Canadian drying plants were equal to the demand. At the request of the Board the company sent a representative to Fort William to meet the Board on July 11. He stated that the dryer had a capacity of about 35,000 bushels per day and that it could come from Buffalo as quickly as a freight steamer, and could elevate grain either into cars or elevators. He laid down three conditions to which the Board of Grain Commissioners must agree before the company would send the dryer to Fort William: First, that if, after the boat came to Fort William, there took place any fire at an American elevator or grain port, or if there was any salvage work to be done the dryer would immediately leave Fort William. Second, that the company would not pay duty. Third, that the company would not accept the rates at which the Canadian plants dried grain; it must be permitted to charge higher rates. The Board allowed the company to charge higher rates but the filed rates for the Canadian drying plants were not changed. If, therefore, owners of grain needing to be dried were willing to pay the higher rates to the Armour Grain Company they could do so, whereas, if they preferred waiting their turn at the local dryers they could do so at the Canadian rates. This arrangement was submitted to the trade at Winnipeg and unanimously approved. It was also

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published widely in the public press so that producers should be informed of the conditions. The company intimated that their rates would run from three to seven cents per bushel according to the condition of the grain. The Board also decided to recommend the government to remit the duty upon the floating dryer. The government agreed on condition that the rates charged were satisfactory to the Board of Grain Commissioners, and also on condition that the dryer should be exported at a date mentioned. The dryer began work on July 19 and continued operating until September 16. The following table shows the work performed, the quantity of grain dried, the shrinkage, the rate per bushel and the total amount earned:—

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GRAIN DRIED BY THE ARMOUR DRYER AT FORT WILLIAM, PORT ARTHUR AND THUNDER BAY.

Date.	Railroad.	Elevator.	Kind of Grain.	Condition.	Wet Bushels.	Dry Bushels.	Bus. Shrinkage.	Price.	Amount.
								cts.	\$ cts.
July 19-20	C.P.R.	B	Wt. htd. htg.	Heating.	78,106	71,802	6,304	3½	3,524 54
" 22-23	"	B	Wht. and oats.	"	140,089	135,389	4,720	6-¾	5,978 09
" 24-25	"	B	Oats heating.	"	56,996	55,057	1,939	3½	1,994 86
" 25-A 5.	"	B	Cond. wheat.	Hot & caked.	120,318	115,392	4,926	6-7	8,119 13
" 26-27	Thunder Bay	B	N.G. hgt. wht.	Heated & ht.	33,654	32,393	1,262	6	2,019 28
" 27-28	"	B	Cond. wheat.	Hot	15,435	15,854	540	6	866 10
" 28-30	"	B	Cond. oats.	Heating.	60,983	58,557	2,426	3½	2,127 10
" 30-31	Port Arthur	B	N.G. Cond. oats.	"	192,433	185,504	69,299	3½	6,735 15
Aug. 3-4	"	B	Cond. wheat.	Hot.	36,110	34,510	1,599	6	2,166 63
" 12-15	C.P.R.	B	Cond. wheat.	"	95,986	93,086	3,900	6	5,819 20
" 15-16	"	B	Rej. hgt. wht.	"	41,156	39,318	1,737	6	2,469 36
" 16-17	"	B	N.G. ntg. wht.	"	10,828	10,312	516	6	649 68
" 17-18	"	B	Cond. htd. wht.	"	45,359	43,359	2,199	7	3,175 14
" 19-20	"	B	No. 6 tf. hgt. wt.	Heating.	26,905	25,920	984	6	1,614 30
" 20-21	"	B	N.G. tf. wheat.	"	19,165	19,411	753	6	1,149 90
" 21-23	"	B	N.G. No. 3 tf. wheat.	Damp hgt.	51,343	49,398	1,945	6	3,800 63
" 23-24	"	B	Ex. 1 hgt. oats.	Hot.	140,880	136,768	4,112	3½	4,930 81
" 24-25	"	B	Cond. wheat.	Hot caked.	43,147	40,708	2,439	7	3,020 30
" 25-26	"	B	N.G. Ex. 1 fd. oats.	Heating.	108,217	104,439	3,777	3½	3,787 60
" 26-27	"	B	Cond. oats.	Hot	86,182	85,224	1,458	3½	2,037 37
" 27-30	Port Arthur	E1	Cond. & N.G. wht.	Heating.	73,026	69,700	3,325	6-7	4,381 56
" 30-S. 2.	"	E1	Cond. oats.	"	127,110	122,665	4,345	3½	4,445 35
Sept. 4 5.	Thunder Bay	E1	Cond. & N.G. wheat.	"	124,354	119,394	4,959	6	7,461 70
" 5-6	"	E1	Htg. barley.	"	8,175	7,932	242	5	408 78
" 5-6	C.P.R.	B	Cond. oats.	Hot.	35,968	34,588	1,380	3½	1,258 90
" 6-7	"	B	N.G. fd. wheat.	Heating.	59,200	55,996	3,204	6	3,552 00
" 7	Thunder Bay	E1	N.G. oats.	"	60,220	58,378	1,342	3½	2,107 70
" 7-9	C.P.R.	B	N.G. rej. wheat.	"	22,891	21,868	1,022	6	1,373 46
" 9-10	"	B	N.G. No. 3 hgt. wheat.	"	29,568	28,131	1,436	6	1,774 09
" 9-10	"	B	N.G. No. 4 hgt. wheat.	"	23,272	22,405	867	6	1,396 37
" 10	"	B	N.G. No. 6 wheat.	"	19,912	18,492	1,420	6	1,194 77
" 11	"	B	N.G. No. 4 tf.	Damp.	48,191	46,189	8,001	6	2,891 46
" 12	Lot 32.	B	N.G. No. 6 tf.	"	15,598	14,954	644	6	935 91
" 12	" 33.	B	N.G. 5 tf. wheat.	"	8,810	8,203	598	6	528 07
" 12	"	B	N.G. tf. rej. hgt. wheat.	Heating.	3,517	3,222	295	6	211 06
" 13	" 34.	B	N.G. 5 rej. htd. hgt. wheat.	Heated.	9,120	8,657	463	6	547 21
" 13	" 35.	B	N.G. fd. htd. wheat.	Heating.	3,964	3,845	118	6	237 84

GRAIN DRIED BY THE ARMOUR DRYER AT FORT WILLIAM, PORT ARTHUR AND THUNDER BAY—Concluded.

Date.	Railroad.	Elevator.	Kind of Grain.	Condition.	Wet Bushels.	Dry Bushels.	Bus. Shrinkage	Price.	Amount.
								cts.	\$ cts.
Sept. 13	.....	B	Wheat tough.....	Damp.....	8,343	8,016	327	6	500 63
" 14	" 36.....	B	Cond. wheat.....	Heating.....	40,417	37,083	2,333	6	2,425 04
" 14	" 37.....	B	N.G. fd. oats htd.....	"	35,611	33,632	1,979	3½	1,246 40
" 15	" 38.....	B	N.G. 3 oats htd.....	"	14,485	13,927	657	3½	510 48
" 16	" 39.....	B	Cond. oats htd.....	"	10,416	10,132	284	3½	364 57
" 16	" 40.....	B	N.G. rej. tr. wheat.....	"	6,231	5,960	271	6	373 87
" 16	" 13.....	A	Cond. oats.....	"	27,320	26,248	1,072	3½	956 20
Totals.....	2,209,801	2,118,841	102,133	107,348 60

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Thus the dryer operated forty-four days, charged on the average 4.85 cents per bushel, and earned \$107,348.60.

This is a large amount to pay a foreign company for drying Canadian grain. On the other hand most of the grain was heating, or hot, and would have been utterly lost had not this foreign plant been available. It was all saved—all reports to the contrary notwithstanding. In the appendix the prices offered for such grain in Duluth and Fort William are given, and it will be noted that the average price was higher in Winnipeg than in Duluth.

It is to be regretted that Canada was so ill prepared to meet an emergency, which, though hitherto rare, yet being climatic might recur at any time. Drying plants were not attractive to private capital at the rates current in Canada, and so the country lost heavily. This is not the only illustration which the last six months have afforded of the general inadequacy of existing facilities for handling western grain.

The government elevator will be equipped with a large drier, but as it cannot be in operation until September, 1913, the Board considered it necessary to endeavour to increase immediately the drying capacity of the terminals.

Two methods of doing so were possible. One was to build or buy a floating drier, and the other to persuade the terminals elevators to install more driers. The filed rates for drying grain in Canada were:—

1. One-half cent per bushel for tough grain.
2. One-half cent per bushel for damp grain.
3. One-half cent per bushel for wet grain.

The Empire Elevator Company offered to install a drier immediately in the Empire Elevator and if necessary another in the Thunder Bay Elevator on condition that the Board sanctioned a four (4) cent rate for treating damp and wet grain. The Board considered that under the circumstances this was expedient, and the drier has been installed in the Empire Elevator.

2. Complaints from the United Kingdom.

Complaints have been received from the United Kingdom to the effect that several cargoes of last year's grain arrived there out of condition. The following is a list of such cargoes:—

AVONMOUTH DOCKS.

Statement showing particulars of *Grain from Montreal* from opening of season, May to August 10, 1912, which arrived in heated condition and could not be delivered to orders ex. ship in consequence:—

June 12.....	Ariel.....	789	Wheat.....	456 bushels
June 12.....	Ariel.....	789	Oats.....	7,256 "
June 29.....	Englishman	800	Oats.....	14,152 "
June 30.....	Clearpool.....	802	Oats.....	18,096 "
July 4.....	Manxman.....	805	Oats.....	8,474 "
July 29.....	Monmouth.....	824	Barley.....	15,772 "
July 19.....	Cornishman.....	818	Oats.....	57,131 "
July 29.....	Monmouth.....	824	Oats.....	41,663 "
Aug. 10.....	Englishman.....	834	Wheat.....	7,742 "
Aug. 4.....	Turcoman.....	829	Oats.....	17,250 "
Aug. 10.....	Englishman.....	834	Barley.....	7,800 "
				195,792 "

The grain carried in these vessels was traced to the lake steamers and the terminal elevators. The following table shows the details as made out by the Chief Inspector of the Eastern Division:—

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Name of Ocean Steamers.	Date Left Montreal.	Date of Arrival.	Kind of Grain Loaded.	Loaded at	Lake Steamers.	Date Loaded.
	1912.	1912.				1912.
Englishman..	July 27	Aug. 10	No. 3 Northern	Fort William	Strathcona	July 15
Englishman..	July 27	Aug. 10	No. 5 Wheat	Fort William	Newona	July 2
Englishman..	July 27	Aug. 10	No. 6 Wheat	Fort William	Edmonton	July 6
Englishman..	July 27	Aug. 10	Sample Wheat	Fort William	Edmonton	June 8
Englishman..	July 27	Aug. 10	Sample Wheat	Fort William	Edmonton	July 6
Englishman..	July 27	Aug. 10	No. Four Barley	Fort William	Beaverton	June 22
Englishman..	July 27	Aug. 10	No. Four Barley	Fort William	Edmonton	July 6
Monmouth...	July 13	July 29	No. One Feed Oats.	Duluth	Dounacona	June 7
Monmouth...	July 13	July 29	No. One Feed Oats.	Duluth	Dunelm	June 26
Monmouth...	July 13	July 29	Feed Barley	Richardsons' Elevator.	Toiler	.....
Monmouth...	July 13	July 29	Feed Barley	Richardsons' Elevator.	Barge Brighton	.....
Englishman..	July 27	Aug. 10	No. Four Barley	Fort William	J. H. Plummer	July 14
Manxman....	June 22	July 4	No. One Feed Oats.	Fort William	Midland Prince	May 4
.....			No. One Feed Oats.	Buffalo	H. C. Packer	May 23
.....			No. One Feed Oats.	Fort William	Neepawah	May 30
.....			No. One Feed Oats.	Fort William and Port Arthur.	Midland King	June 3
.....			No. One Feed Oats.	Fort William	Neepawah	May 30
Corinshman..	July 7	July 29	No. Two Feed Oats.	Fort William	Neepawah	May 30
.....			No. Two Feed Oats.	Fort William	Midland Prince	June 7
Cornishman..	July 7	July 29	No. One Feed Oats.	Fort William	Neepawah	May 30
.....			No. One Feed Oats.	Fort William and Port Arthur.	Midland King	June 3
.....			No. One Feed Oats.	Fort William	Midland Prince	May 4

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Destination.	Bushels.	Holds of Ocean S.S.	Remarks.
Montreal.....	16,000	No. 5 Hold Forward Part.	Unloaded direct from inland to ocean steamer, July 25, 1912.
Depot Harbour....	7,994-40	No. 6 Orlop.....	Transferred at Depot Harbor into cars thence to Montreal discharged into G. T. R. Elevator B. floated into Barge Madonna, hence into ocean steamer July 25, 1912.
Kingston.....	16,000-00	No. 3 Hold.....	Transferred at Kingston into Barge Melrose, thence to Montreal discharged into Harbour Com. Elev. hence into ocean S.S. July 23, 1912.
Montreal.....	7,403-30	No. 5 Aft. Part.	Unloaded into Harbour Com. Elev. hence into ocean steamer July 23, 1912.
Kingston.....	596-30	No. 5 Aft. Part.	Transferred at Kingston into barge Melrose, thence to Montreal discharged into Harbour Com. Elev. hence into ocean steamer July 23, 1912.
Kingston.....	29,786-22	No. 1 & 6 Holds	Transferred at Kingston into barge Hector thence to Montreal discharged into G. T. R. Elev. B. floated Ex. G. T. R. into barges Ethel and Madonna hence into ocean S.S. July 25, 1912. Transferred at Kingston into barge Valencia to Harbour Com. Elev. hence into ocean S.S. July 25, 1912.
Montreal.....	29,058-28	No. 2 Hold.....	Unloaded into Harbour Com. Elev. into ocean S.S. July 11, 1912.
Montreal.....	17,933-18	No. 2 Hold.....	Loaded direct from inland to ocean S.S. July 11, 1912. Melady & Co.
Montreal.....	14,037-34	No. 4 Hold.....	Unloaded into G. T. R. Elev. B. hence into ocean steamer July 12, 1912.
Montreal.....	2,628-46	No. 4 Hold.....	Loaded direct from inland to ocean steamer July 12, 1912. Jas. Richardson & Sons, Ltd.
Montreal.....	20,315-40	No. 4 Hold and No. 1 Orlop.	Loaded direct from inland to ocean steamer July 25, 1912. British Empire Grain Co.
Tiffin.....	9,421-06	No. 3 Hold and No. 2 Hold and Orlop.	Transferred at Tiffin into cars thence to Montreal discharged into G. T. R. Elev. B. hence into ocean steamer June 22, 1912.
Montreal.....	11,181-06	"	Unloaded into Harbour Com. Elev. hence into ocean steamer June 22, 1912.
Montreal.....	12,628-00	"	Unloaded into Harbour Com. Elev. hence into ocean steamer June 22, 1912.
Port Colborne....	41,602-24	"	Transferred at Port Colborne into barge Quebec thence to Montreal hence into ocean steamer June 22, 1912. Grain Growers Grain Co.
Port Colborne....	10,162-00	"	Transferred at Port Colborne into barge Quebec thence to Montreal hence into ocean steamer June 22, 1912.
Montreal.....	43,792-28	No. 2 & 4 Holds	Unloaded into Harbour Com. Elev. hence into ocean steamer July 6, 1912.
Port Colborne....	3,266-00	"	Transferred at Port Colborne into barge Melrose thence to Montreal hence into ocean steamer July 6, 1912. Grain Growers Grain Co.
Montreal.....	816-04	No. 5 & Orlop..	Unloaded into Harbour Com. Elev. hence into ocean steamer July 6, 1912.
Port Colborne....	23,603-00	"	Transferred at Port Colborne into barge Melrose thence to Montreal hence into ocean steamer July 6, 1912.
Tiffin.....	3,816-06	"	Transferred at Tiffin into cars thence to Montreal discharged into G. T. R. Elev. B. hence into ocean steamer July 6, 1912. Grain Growers Grain Co.

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The above list was accompanied by the following from the Chief Inspector of the Eastern Division:—

SIR,—Referring to yours of the 7th inst., I beg to say that the grain mentioned in these memos, having been loaded and inspected at Fort William, Port Arthur and Duluth, and again on ocean steamers at Montreal, without any supervision by the staff of this office, it is impossible for me to say anything concerning the quality or condition of the grain on its arrival at this port; the only thing that was done by this office in connection with these shipments, was the issuing of some splits.

As the complainants did not give any information as to bills of lading, location of grain in ocean steamers, grades or certificates, it became necessary to seek information from steamship companies, shippers and agents, some of whom gave the information freely, others reluctantly, some very tartly and others declined.

As no doubt all European buyers of Canadian grain are well aware of the stand the Canadian Government has held and still holds with regard to the finality of inspection of grain, and, as I am credibly informed, there is a contract between Canadian exporters and European importers to the effect that inspection, at a point specified in the contract, must be final as to quality, it is difficult under these circumstances to find grounds to justify such severe strictures from the importers.

The information gathered regarding the various shipments, I put before you in tabulated form.

I have the honour to be, sir,

Your obedient servant,

(Sgn.) A. G. McBEAN.

The Acting Chief Inspector of the Western Division was then furnished with copies of these lists and instructed to report upon the loading of the cargoes at the terminal elevators. The following is a copy of his report:—

WINNIPEG, November 15, 1912.

C. BIRKETT, Esq.,

Secretary Board of Grain Commissioners,
Fort William, Ont.

DEAR SIR,—I have your favour of November 8, file No. 38, requesting a report on the inclosed list of cargoes.

In reply I would say I have examined my samples of these cargoes taken at time of loading, and find them in good shape, dry, sweet and of good colour, with the exception of the sample wheat No. 49 loaded on the *Edmonton*.

By my sample of this lot, I would expect the wheat to go wrong, as it is not dry and has a smell.

With this exception these cargoes were in good shape when loaded. Further than this, I have no supervision over them.

I am inclosing you a list giving name of vessel, date, grade, where loaded, number of bushels; also remarks as to how I found my samples. I am also

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sending you a portion of each sample that you may examine them, and would suggest that they be forwarded to the Secretary of the London Corn Trade Association.

These samples were placed in tin boxes with a close fitting cover at time of loading, preserving the identity and condition of the grain.

On the list which you inclosed, there are two shipments out of Buffalo, and two out of Richardson & Sons' elevator at Kingston. These I have no means of tracing.

I am inclosing file No. 38.

Yours truly,

(Sgn.) GEO. SERLS,

Acting Chief Inspector.

Vessel.	Date Loaded	Grade.	Point of Shipment.	Quantities.	Remarks.
Tagona.....	May 24	Ex. 1. Fd. O.	Port Arthur..	118,000 bu.	Good color dry and sweet.
Midland Prince.....	" 4	Feed Wheat..	Fort William..	151,800 "	Dry and sweet.
Midland Prince.....	" 4	No. 1 Fd. O.	Fort William..	107,000 "	Good in color, dry and sweet.
Emperor.....	" 15	No. 1 Fd. O.	Port Arthur..	90,000 "	Good in color, dry and sweet.
Strathcona.....	" 15	No. 3 C.W. O.	Port Arthur..	32,732-22 "	Good in every respect for C.W.
Strathcona.....	" 15	Ex. 1 Fd. Oats	Fort William..	96,900 "	Good in color, dry and sweet.
Strathcona.....	" 15	3 Nor. Wht..	Port Arthur..	45,000 "	Good 3 Nor. Dry and sweet.
Sequin.....	" 13	Ex. 1. Fd. O.	Port Arthur..	66,500 "	Good heavy oats, dry, sweet, good.
Kenora.....	" 14	No. 1 Fd. O.	Port Arthur..	77,000 "	Good in color, dry and sweet.
Newona.....	July 2	No. 5 Wheat..	Fort William..	40,000 "	Well up to grade, dry and sweet
Edmonton.....	" 6	No. 6 Wheat..	Fort William..	20,000 "	Well up to grade, dry and sweet
Edmonton.....	" 6	No. 4 Barley.	Fort William..	8,743-26 "	Dry and sweet.
Edmonton.....	June 8	Sample Wheat No. 49.	Port Arthur..	16,079-40 "	Not dry, some smell, would not expect this wheat would keep.
Beaverton.....	" 22	No. 4 Barley.	Fort William..	30,000 "	Dry and sweet.
Donnacona.....	" 7	No. 1 Fd. O.	Duluth.....	25,512-24 "	Dry and sweet, good color.
Dunelm.....	" 26	Ex. 1 Fd. Oats	Duluth.....	28,302-16 "	Dry and sweet, good color.
J. H. Plummer.....	July 14	No. 4 Barley.	Fort William..	20,341-40 "	Dry and sweet.
Neepawa.....	May 30	No. 1 Fd.Oats	Fort William..	25,000 "	Dry and sweet, good color.
Midland King.....	June 3	No. 1 Fd.Oats	Port Arthur..	10,329-14 "	Dry and sweet, good color.
Neepawa.....	May 30	No. 2 Fd.Oats	Fort William..	45,000 "	Dry and sweet, good color.
Midland King.....	June 3	No. 1 Fd.Oats	Fort William..	54,670-20 "	Dry and sweet, good color.
Midland King.....	" 7	No. 2 Fd.Oats	Fort William..	66,367-09 "	Dry and sweet, good color.

In accordance with the suggestion of the Acting Chief Inspector portions of the samples were sent to the London Corn Trade Association.

Sample cargo 49 ex. *Edmonton* carried no inspection certificate.

The Board could find no ground for holding that the inspectors in the Western Division had not exercised all reasonable care in dealing with these cargoes, and under the law the western inspection is final. As, however, the standing of Canadian certificates in the British market is an important asset, the Board sought to ascertain whether the grain was interfered with while in transit between the terminal elevators and the ocean steamers.

Four of the cargoes were loaded direct from the lake into the ocean steamers, and the time that elapsed between the date of loading at Fort William and that of loading into the ocean steamers was from 10 to 15 days.

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Two were unloaded into cars, thence unloaded into the Grand Trunk Railway elevator, and thence into the ocean steamer, the period being from 33 to 48 days.

One was unloaded into cars, thence into the Grand Trunk elevator, thence into barges, and thence into ocean steamers, the period being 23 days.

Three were unloaded into barges, thence into the Harbour Commissioners' elevator and thence into the ocean steamers, the period being from 17 to 19 days.

Six were unloaded into the Harbour Commissioners' elevator and thence into the ocean steamers, the period being from 23 to 45 days.

One was unloaded into barges, thence into the Grand Trunk Railway elevator thence again into barges, and thence into the ocean steamer, the period being 33 days.

One was unloaded into the Grand Trunk Railway elevator and thence into the ocean steamer, and four were unloaded into barges and thence to Montreal, whether into an elevator or not was not specified, and thence into the ocean steamers, the period being from 19 to 33 days.

Theoretically, the grain may have gone out of condition:

1. By natural deterioration.
2. By being tampered with in the eastern elevators.
3. By unfavourable conditions in boat, barge or bin, or in loading and unloading.

The Board had no means of reaching any definite conclusion.

SUPERVISION IN THE EASTERN DIVISION.

Investigation of these cargoes brought up the matter of supervision of western grain while in transit through the Canadian channels to Atlantic steamers. There is no supervision at present. The inspectors in the eastern division have never been charged with that duty hitherto, and the Grain Act does not permit the reinspection of western grain in the eastern division. In the following communication the Liverpool Corn Trade Association give their views on the matter:—

LIVERPOOL, ENG., September 27, 1912.

DEAR SIR,—My directors have received numerous complaints of the bad condition in which Canadian oats have recently been landed at this port.

In each case a period of about three months has elapsed between the inspection of the grain at Fort William or Port Arthur and the shipment from the seaboard, and upon examination of samples here by the official sampler of this association it is evident that the oats were not shipped in good condition.

As you are no doubt aware, merchants on this side purchase grain from the western provinces of Canada on contracts which provide that a certificate shall be final as to quality, and when such certificate is tendered, the buyer must accept the quality or condition.

It appears to my directors that the care exercised by the inspectors at the interior points that the grain should be satisfactory as to quality and condition is to a very great extent rendered useless if no steps are taken to see that the same goods are shipped in good condition at the seaboard.

I am instructed to ask you if your department will give this matter very careful consideration, and my directors would suggest that supervision and inspection of Canadian grain shipped at Canadian ports by a government

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inspector on the point of condition, would prevent the reputation of the western quality certificates being prejudiced by the grain being shipped into the ocean steamers in poor condition.

Yours faithfully,

(Sgn.) R. R. DIXON,

Asst. Secretary.

The Liverpool Corn Trade Association thus ask for a supervision and inspection of western grain at the Atlantic seaboard on the point of condition.

This matter is taken up in another section of this report.

CHAPTER 2.

MATTERS OF INSPECTION IN WESTERN DIVISION.

(1) Multiplicity of Grades.

In dealing with the balance of last year's crop the Board realized that the capacity of the elevators was reduced by the excessive number of grades. It was calculated by the Acting Chief Inspector that under the existing practice no less than 530 grades of grain were recognized, though not all of these were found in any one harvest. The inspector's list showed that Nos. 1, 2, 3 and 4 Northern wheat had each been subdivided into 47 distinct grades, as follows:—

No. 1 Northern—

- Rejected 1 Northern mixed, wild oats and other seeds.
- Rejected 1 Northern mixed with barley.
- Rejected 1 Northern mixed with heated.
- No grade 1 Northern tough.
- No grade 1 Northern damp.
- No grade 1 Northern wet.
- No grade tough rejected 1 Northern on account wild oats and other seeds.
- No grade tough rejected 1 Northern on account barley.
- No grade damp rejected 1 Northern on account wild oats and other seeds.
- No grade damp rejected 1 Northern on account barley.
- No grade wet rejected 1 Northern on account wild oats and other seeds.
- No grade wet rejected 1 Northern on account barley.
- No grade tough rejected 1 Northern mixed with heated.
- No grade damp rejected 1 Northern mixed with heated.
- No grade wet rejected 1 Northern mixed with heated.
- No grade tough rejected 1 Northern mixed with heated and heating.
- No grade damp 1 Northern mixed with heated and heating.
- No grade wet rejected 1 Northern mixed with heated and heating.
- No grade tough smutty 1 Northern rejected 1.
- No grade wet smutty 1 Northern rejected 1.
- No grade damp smutty 1 Northern rejected 1.
- No grade tough smutty 1 Northern rejected 2.
- No grade damp smutty 1 Northern rejected 2.
- No grade wet smutty 1 Northern rejected 2.
- No grade tough smutty rejected 1 Northern mixed with wild oats and other seed rejected 1.
- No grade tough smutty rejected 1 Northern mixed with wild oats and other seed rejected 2.
- No grade damp smutty rejected 1 Northern mixed with wild oats and other seed rejected 1.
- No grade damp smutty rejected 1 Northern mixed with wild oats and other seed rejected 2.
- No grade wet smutty rejected 1 Northern mixed with wild oats and other seed rejected 1.
- No grade wet smutty rejected 1 Northern mixed with wild oats and other seed rejected 2.

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No grade tough smutty rejected 1 Northern mixed with heated rejected 1.
 No grade tough smutty rejected 1 Northern mixed with heated rejected 2.
 No grade damp smutty rejected 1 Northern mixed with heated rejected 2.
 No grade damp smutty rejected 1 Northern mixed with heated rejected 1.
 No grade wet smutty rejected 1 Northern mixed with heated rejected 1.
 No grade wet smutty rejected 1 Northern mixed with heated rejected 2.
 No grade Northern tough and sour.
 No grade 1 Northern damp and sour.
 No grade 1 Northern wet and sour.
 Rejected 1 Northern mixed with fireburnt.
 Rejected smutty 1 Northern mixed with heated rejected 1.
 Rejected smutty 1 Northern mixed with heated rejected 2.
 Rejected smutty 1 Northern mixed with heated wild oats and other seed rejected 1.
 Rejected smutty 1 Northern mixed with heated wild oats and other seed rejected 2.
 Rejected smutty 1 Northern mixed with heated and barley rejected 1.
 Rejected smutty 1 Northern mixed with heated and barley rejected 2.
 Nos. 2, 3 and 4 were similarly subdivided, and so were the other grades and grains.

Cause of Multiplicity of Grades.—Inspectors are required to note the reasons for the grades they give. These reasons appeared to indicate different values. It was, therefore, an easy step to treat them as sufficient grounds for separate binning and trading, and this step was taken because of a certain pressure from producers and traders. Increasing the number of grades was the only way by which the grading system could be made elastic enough to provide for lots of grain which, while within the same grade, varied in character and value. In the markets of the United States trading by sample gives the elasticity required, so that the grades are few. In the absence of sample markets in Canada, the multiplicity of grades is almost inevitable.

Effect of the Multiplicity of Grades.—The excessive number of grades tended to confusion in the inspection. A glance at the list of the subdivisions of No. 1 Northern is enough to show the absurdity of it. A still worse effect was that it reduced to a marked degree the capacity of the elevators. A large bin might be occupied for several weeks by a small lot of one of these absurd grades, and the drying capacity of the terminals was reduced 25 per cent by the same cause.

Reduction of the Grades.—At the request of the Board, a committee of expert grain men, along with the Acting Chief Inspector, attempted to reduce the list, with the following result:—

The grades in use for the crop of 1912:

- No. 1. Hard.
- No. 1 Northern.
- No. 1 Northern damp.
- Smutty No. 1 Northern.
- Rejected No. 1 Northern on account seeds.
- Rejected No. 1 Northern on account heated.

This makes six divisions of each of the six grades of spring wheat. The same applies to the five grades of winter wheat.

- No. 1 CW oats.
- No. 1 CW oats tough.
- No. 1 CW oats damp.
- Rejected oats mixed with heated.
- Condemned.

This makes five divisions of each of the six grades of oats.

No. 3 CW barley.
 No. 3 CW barley tough.
 No. 3 CW barley damp.
 Rejected barley mixed with heated.
 Condemned barley.

This makes five divisions of each of the three grades of barley.

No. 1 NWC flax.
 No. 1 NWC tough.
 No. 1 NWC damp.
 Rejected mixed with heated.
 Condemned.

This makes five divisions of each of the three grades of flax.

The grades 'Rejected mixed with heated' and 'Condemned' have been used but little so far in grading this crop, but may be required later on.

A substantial reduction has thus been effected. The list is, however, still too long. Minnesota has seven grades of spring wheat, and this reduced list leaves thirty-six in Canada, with corresponding differences in the number of grades in the other varieties of wheat and other kinds of grain. It would be unjust to the producers of grain in Canada to insist upon a radical reduction in the number of grades unless sample trading were permitted.

(2) Moisture Testers.

It was a matter of surprise to the Board that there were no moisture testers in the inspection offices of the Western Division. Inspecting tough grain or grain that has been dried is by no means easy, and it was especially difficult in the crop of 1911-12. The inspectors had only their sense to guide them in estimating the amount of moisture in the grain, though for a small sum of money they might have been given mechanical aid. It is an evidence of the good work done by them that so few cargoes shipped went out of condition. It appeared to the Board that in the interest of accurate inspection the time had more than come in Canada when every mechanical aid should be secured. The offices were accordingly equipped with moisture testers.

(3) The Commercial Grades.

The London Corn Trade Association has made the following proposal with reference to the commercial grades:—

That the present commercial grades be standardized on a similar basis to Nos. 1 and 2 Northern, stating the maximum percentage of unsound grains and admixture (i.e., everything that is not wheat) and the minimum percentage of sound wheat, and this proposal is supported by the Liverpool Corn Trade Association and the National Association of British and Irish Millers.

No. 3 Northern.—The London Corn Trade Association also asked for a closer definition of No. 3 Northern Manitoba on similar lines to Nos. 1 and 2.

View of the Board.—The standardization of the commercial grades and the closer definition of No. 3 thus proposed could not be carried into effect for the crop of 1911 and 1912.

The Board recognized that there is much to be said in favour of the proposals, although the commercial grades have hitherto been fixed relative to the actual conditions of the crop of each year. The practicability of the proposal is being investigated, but the Board is not yet in a position to make a final report upon the matter.

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(4) Inspection Districts in the West.

Lethbridge, Moosejaw and Regina have applied to be made inspection points, and in addition milling interests at other points have asked that inspectors be placed at their mills.

Hitherto such inspection districts have not been established in the West—they have been a perquisite of the East. In the West inspection has been confined to terminal points or points leading direct to terminal points. The only concession granted in the West to mills was that of weighing, and weighmen were placed only at such mills as guaranteed any deficit that might arise between revenue and expenses. In the East no such condition was annexed in the case of inspection districts or inspection at milling points.

The lines along which the grain laws have been administered up till date have resulted in a shortage both of money and of qualified inspectors. The Board has neither the men nor the money necessary to grant all these applications or even a few of them immediately.

Yet the applications cannot be lightly disregarded whether for inspection districts or for inspection at milling points. Further on in this report there is a policy recommended which would mean the naming of certain points within the grain area as terminal points and which would mean the establishment there of both elevator and inspection facilities. This policy would meet some of these applications.

In regard to inspection for mills, the Board consider that there should be a uniform practice east and west based on the principle that inspection and weighing would be granted to milling points on condition that the parties so served guaranteed any deficit that resulted. This matter of revenue and expenditure appears trifling to some of the applicants. It is dealt with later in this report.

CALGARY SURVEY BOARD.

A Survey Board has been established at Calgary, on lines similar to those governing the Survey Board at Winnipeg. The Calgary Board is restricted to west-going grain.

CHAPTER 3.

ELEVATORS.

(1) Country Elevators.

There are in operation 2,225 public country elevators, with a total capacity of 67,000,000 bushels. The laws governing them were administered through the office of the Warehouse Commissioner previous to the appointment of the Board. The work of that office included in general:—

1. The licensing and bonding of the elevators, and the issuing of rules and regulations.
2. Inspecting the elevators.
3. Collecting statistics.
4. Investigating complaints from producers.

As the number of elevators increased the work of the office grew in volume.

1. The issuing of licenses, bonds, rules and regulations for such a large number of elevators involved a considerable amount of clerical work of a more or less routine character.

2. The work of inspection was done by the Deputy Commissioner. It is impossible for one man to visit so many elevators scattered over so large an area. This work accordingly, however useful, fell behind, and appears to have become an inspection only upon special occasions.

3. The office aimed at very complete statistics. Quarterly and annual statements of a most detailed character were required from the elevators, and this involved a huge amount of clerical work. Some use was made by the trade of some of the statistics, but little use was made of most of them. Figures from over two thousand country elevators, figures, too, which were not verified, can have little value for purposes either of trade or administration. Some really valuable statistics were collected in this office, but the attempt to secure such complete details about the grain handled in each country elevator, however justifiable for a time, gave little return.

4. The investigation of complaints was an important part of the work of this office. The creation of the new office of Shippers' Agent relieved it to some extent in this respect.

The warehouse commissioner's work included in its scope more than the country elevators, but the above are the main lines along which these were administered. For these lines of work Winnipeg was the most suitable location. The work required quick communication with elevator, grain and railway companies, and these had their headquarters in Winnipeg. Further, Winnipeg is not inaccessible to grain growers, and numbers of these visited the office in person. Although, therefore, the number of offices connected with the administration of the grain laws appears to be excessive, the Board could not close this particular office altogether. The licensing, bonding and the issuing of notices, rules and regulations have been transferred to the Board's offices at Fort William. The collecting of statistics has been also transferred, and the question what statistics are worth collecting is being carefully considered. On the other hand the Board appointed for a period of six months five travelling agents, who devote the whole of their time to the visiting of the country elevators. Each was given a district, and each is required to send a daily report to the Board. The work of these agents is to make a regular inspection of the elevators in their respec-

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tive districts, to ascertain the conditions both as regards storage and transportation, send full information to the Board, and to see that the laws are obeyed. The former Deputy Commissioner was retained in the office at Winnipeg partly to assist the travelling inspectors, and partly to act as shippers' agent in the place of Mr. D. D. Campbell, who resigned. The former Warehouse Commissioner, Mr. Castle, was transferred to the Board's office in Fort William.

The storing of grain at interior points has given rise to much heartburning in western Canada. To remedy the grievances complained of much legislation has been enacted, many administrative officials appointed, loading platforms were erected, and bold schemes have been proposed and some have been tried.

In the State of Minnesota growers of grain built elevators for themselves. In the year 1911 out of a total of 1,114 local elevators, there were 249 owned by farmers. In Canada a few farmers' elevators have been built, but their career was a troubled one. Within the past two years, however, the Canadian grain growers have taken up the matter in a very different way. The earlier farmers' elevators were independent and isolated, and poor management, keen competition and inadequate support made failure in many cases inevitable. There are still in existence 46 farmers' elevators, each independent of the other—but the new factor lies outside them. The Saskatchewan Co-operative Elevator Company is now operating a line of 139 elevators in Saskatchewan, and the Grain Growers' Grain Company is operating a line of 146 in Manitoba. Should these co-operative companies succeed, and at the present moment there appears to be no reason to anticipate their failure, the storing of grain at initial points has entered upon a new and probably final phase. The Board follow with keen interest and sympathy the progress of the greatest experiment in co-operation ever attempted in Canada, and probably in North America.

WORK OF THE TRAVELLING INSPECTORS.

Four of the inspectors began work at the end of October and the fifth one in December. All told they have reported up to date upon the elevators at over a hundred and fifty points, and their reports have been of great value to the Board. The time has not come to give a detailed analysis of their reports, but there is no doubt that such inspection is one of the best means by which the actual conditions can be ascertained, and the fact that the elevators are being inspected tends in itself toward a more rigid adherence to the law.

The following is a copy of the report which they are required to fill in:—

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ARE CARS PROMPTLY LOADED AT		Are cars of merchandise unduly delayed in un- loading?	Do shippers as a rule see that cars are in good or- der before loading same?	Is there any dissatisfac- tion regarding distribu- tion of cars?	Wheat.		Barley.	
Platform.	Elevator.				Street Prices. Track Prices.		Street Prices. Track Prices.	
					1 H.....		No. 3x.....	
					1 Nor.....		No. 3 C.W.....	
					2 Nor.....		No. 4 C.W.....	
					3 Nor.....			
					No. 4.....			
					No. 5.....			
					No. 6.....			
					Feed.....			
					Oats.		Flax.	
					Street Prices. Track Prices.		Street Prices. Track Prices.—	
					2 C.W.....		1 N.W.C.....	
					3 C.W.....		2 C.W.....	
					Ex. 1 Fd.....		3 C.W.....	
					Feed.....			

Country Elevator Inspector.

General remarks:

Fill in one report for each station.

(2) Eastern Transfer Elevators.

The following is a list of the licensed eastern elevators that handle western grain. The list shows the location, name of operating company, railway line, capacity of the elevator and the total capacity:—

Location.	Operating Company.	Railway	Capacity
Kingston.....	Mont. Transportation Co..... J. Richardson & Sons.....	C.P.R.... ".....	1,000,000 300,000
Prescott.....	Prescott Terminal Elev. Co.....	" G.T.R....	1,000,000
Port McNichol.....	Canadian Pacific.....	C.P.R....	2,000,000
Collingwood.....	Coll. Elevator Co.....	G.T.R....	200,000
Depot Harbor.....	Grand Trunk.....	".....	2,000,000
Goderich.....	Goderich Elev. & Transit..... Western Canada Flour Mills.....	C.P.R.... ".....	1,000,000 800,000
Meaford.....	Georgian Bay Milling and Power Company.....	G.T.R....	700,000
Midland.....	Midland Elev. Company.....	".....	1,200,000
Pt. Edward.....	Pt. Edward Elev. Co.....	".....	500,000
Tiffin.....	Grand Trunk..... Aberdeen Elev. Co.....	"..... ".....	2,400,000 1,000,000
Pt. Colbourne.....	Government..... Maple Leaf.....	"..... ".....	1,000,000 900,000
Montreal.....	Harbor Commissioners..... Montreal Warehousing Co.....	C.P.R.... ".....	3,620,000 1,400,000
West St. John.....	Canadian Pacific.....	".....	1,000,000
St. John, N.B.....	Intercolonial Railway.....	I.C.R....	500,000
Halifax, N.S.....	Intercolonial Railway.....	".....	500,000
Total.....			23,020,000

It is noteworthy of the above that:—

The state operates 4 with capacity of...	5,620,900 bushels.
Railway companies operate 4 with capacity of.	7,400,000 "
Private companies operate 12 with capacity of.	10,000,000 "

With regard to the amount of grain shipped through each of these three classes accurate statistics are not in the hands of the Board. It would appear, however from such statistics as are available, that the elevators owned by private companies shipped of the crop of 1910-11 as much as if not more than the other two put together.

When the grain leaves the terminal elevators it goes to Europe either by way of the United States or through Canadian ports. The following figures give some indication of the relative proportions of the two streams:—

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COMPARATIVE STATEMENT of Shipments ex. Elevators at Fort William and Port Arthur,
September, October and November, 1911 and 1912.

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1911	Wheat.	Oats.	Barley.	Flax.	Total.	In store in
September.....	3,402,216	870,157	107,219	4,379,592	3,309,742
October.....	13,369,059	1,217,730	249,373	41,302	14,877,464	11,394,121
November.....	16,437,502	4,014,097	676,940	181,159	21,309,698	902,314
Total.....	33,208,777	6,101,984	1,033,532	222,461	40,566,754	

Shipped to Buffalo.....	22,620,174
Shipped to Canadian Ports.....	17,946,580

1912	Wheat.	Oats.	Barley.	Flax.	Total.	In store in
September.....	2,884,483	1,561,403	407,214	333,840	5,186,840	378,364
October.....	17,959,850	1,844,819	936,127	601,702	21,342,398	196,842
November.....	26,171,803	7,274,625	1,860,218	2,368,998	37,675,644	211,687
Total.....	47,416,136	10,680,847	3,203,559	3,304,540	64,205,082	

Shipped to Buffalo.....	22,334,487
Shipped to Canadian Ports.....	41,870,595

Shipped 3 months, 1911.....	40,566,754
" 1912.....	64,205,082

Increase for 1912.....	23,638,328
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In both cases the grain after it leaves the terminal elevator passes through:—

1. Lake steamers, marine legs, pipes, barges, floating elevators and cars.

2. Eastern elevators, either Canadian or American, the majority of which are operated neither by the state nor by railway companies but by companies or parties interested in grain.

There is no state supervision over either of these sets of channels through which western Canadian grain must pass on its way to Europe, and connected with these channels are possible causes of damage to the grain.

The dust and dirt in holds, bins and cars, loading or unloading during rain or snow, shipping water during the voyage because of storms or accidents—these are only a few of the major possible causes of damage to grain in transit, out of which arise claims for short weights and for grain going out of condition. If the damaged grain is not removed it may work serious mischief. In the elevators again in which the grain is stored for shorter or longer periods there is at least the possibility of accidental or intentional mixing. The elevators, Canadian and American, are not, except in a few cases, operated by either the state or by men who have no interest in grain, and they are in no case supervised by Canadian officials.

The grain goes through the elevators to the orders of dealers. There is no inspection and no supervision. There is no machinery for safeguarding either its grade or its condition, and it carries with it the original western certificate.

It is hardly enough to say that marine insurance protects against storm and sea or that the bonding privilege maintains intact through United States channels the grain as it was inspected or that Canadian transfer houses have no interest in the grain. It is difficult to see why suspicion should be a proper attitude towards terminal elevators where there are both inspection and supervision and confidence proper attitude towards transfer elevators also operated by grain men, when there is neither inspection nor supervision, and towards American elevators where there can be neither inspection nor supervision by Canadian officials.

Various suggestions have been made to the Board on this matter. The most important are as follows:—

1. To sample all cargoes from the terminal elevators when they are being unloaded at Canadian lake ports and again when being loaded into the Atlantic steamers at Montreal and St. John. Some add that samples should also be taken of all cargoes of Canadian grain when they are being unloaded at the British ports.

2. To inspect all boats, barges and cars in which the grain is carried, and to insist that they shall be clean and fit to carry grain; to supervise the loading and unloading, protecting the grain against rain and snow; to remove all damaged grain and in general to guard the grain while in the hands of the carriers.

3. To supervise the binning in all the eastern transfer houses by a method similar to that now in operation in the lake terminals.

4. To establish in Montreal and St. John some way of supervising the grain as to condition only, not as to grade.

5. To establish in Montreal an inspection of western grain, but allowing no change of grade except in cases of deterioration only.

6. To establish in Montreal a full inspection of western grain, permitting cleaning, drying and improving the grain, and also change of grade according to the judgment of the inspector, but in keeping with the grades of western grain.

7. To take all transfer elevators now operated by parties interested in grain out of their hands and to have them operated either by the railway companies or by the state.

Some of these suggestions are in direct opposition to the Canada Grain Act and any one of them would add a large amount to the annual expenditure already too large for the revenue. All of them presuppose that so long as the western certificate follows the grain, the state should see that both certificate and grain are kept in conformity.

The New York Produce Exchange has lately made certain rules 'Regulating Transactions in Bonded Wheat for Future Delivery.' This wheat is to be of the 'Dominion of Canada official inspection as to grades.' One rule is as follows: 'It shall be the duty of the inspector-in-chief or his deputies to inspect as to *condition* and supervise the weight of all bonded wheat going into store or afloat in the port of New York. They shall inspect as to *condition* and supervise the weights of all bonded wheat delivered from shore, elevator or a float, and *furnish a certificate as to condition of such grain.*' (As per form prescribed.)

This is a new factor and needs consideration. The Board cannot make any recommendations on the whole question or on this particular part of it for the present.

(3) Interior Terminal Elevators.

There is a strong demand for interior terminal elevators, and in endeavouring to formulate a policy for terminal elevators, the Board devoted much attention to this demand. The grounds for the demand arise from the general conditions of the present grain situation.

The grain fields are rapidly increasing in area, and are rapidly extending farther west and north. The western development is most marked up to date in Alberta, but the construction of the Grand Trunk Pacific will bring about a similar development

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in British Columbia. The increase in acreage, the western and northern extensions of the grain fields, and the increase in the total volume of grain produced, have put a severe strain upon the existing grain moving system; upon the supply of rolling stock cars and locomotives; upon the railway yards at Winnipeg and Fort William; upon the amount of storage at both interior, terminal and eastern points; upon the inspection department; and upon the available tonnage at Canadian ports both on the great lakes and on the Atlantic ocean. The strain is felt by every part of the system, and no part at the present can be said to be adequate to the work ahead of it, if the production of the grain continues to increase.

It is often said that too little is being done in the way of increasing transportation and storage facilities; the fact is that great efforts are being made to keep up with the increase in production. The railway companies have been making serious efforts to keep up with the situation. At Fort William and Port Arthur over 11,000,000 bushels of extra storage capacity are being built. Montreal has been increasing its storage and developing its harbour. The inspection department is being strengthened, and all engaged in moving Canadian grain are doing their best along the lines of the present system.

TERMINAL ELEVATOR Storage Capacity at Fort William and Port Arthur, season 1911-1912, with Additions for 1912—and Dates of Completion.

	1911	1912	Additions 1912	Ready for Operation.
<i>Fort William.</i>				
C. P. R. A. & C.....	2,234,900	2,234,900		Early 1913.
C.P.R. B. & E.....	2,458,000	2,458,000		
C.P.R. D.....	2,737,500	3,737,500	1,000,000	
Black & Muirhead.....	125,000	125,000		
West. Ter. Elev. Co.....	900,000	900,000		
Consolidated Elev. Co.....	1,750,000	1,750,000		
Ogilvie Flour Mills Co.....	1,100,000	1,100,000		
Empire Elevator Co.....	1,750,000	1,750,000		
David Horn & Co.....		1,175,000	1,750,000	Sept. 1913. 1912
Parrish & Heimbecker.....		100,000	100,000	
Fenton Elevator Co.....		20,000	20,000	
Davidson & Smith.....	80,000	80,000		
G. T. P.....	3,250,000	5,750,000	2,500,000	
Board of Grain Commissioners.....		3,250,000	3,250,000	Sept. 1913
Port Arthur Elev. Co.....	7,000,000	9,500,000	2,500,000	Feb. 1913
Thunder Bay Elev. Co.....	1,500,000	1,500,000		
David Horn & Co.....	750,000	750,000		
National Elev. Co.....	65,000	65,000		
<i>Winnipeg.</i>				
C.P.R.....		1,000,000	1,000,000	
Total.....	25,700,400	27,820,400	12,120,000	

Notwithstanding these efforts the situation is not satisfactory. While the present crop has been so far, moved as rapidly as conditions admit, yet there has been ever present the possibility of a congestion at the eastern transfer houses or the terminal points, which would have had most serious consequences. Freight rates by lake and sea have been unusually high this year. The export market was disturbed, and at times it seemed as if the terminal elevators would contain too large a quantity of grain at the close of navigation. There is no reserve of storage capacity in western Canada to meet such an emergency if it arose. Again, there is no adequate provision made for the effects of unfavourable climatic conditions such as existed last

year. These conditions were exceptionable, but unfavourable weather may occur in any harvest season, and as to the present crop, there is a good deal of anxiety as to the quantity of grain that may require to be dried. Last summer the Canadian drying plants at the head of the lakes were utterly inadequate, and had it not been for the action of the government in bringing in the Armour Grain Company's floating drier a disaster could not have been avoided. The floating drier saved 2,209,800 bushels of grain, most, if not all, of which would have been a total loss. A serious attempt has been made to increase the drying capacity at the head of the lakes, but it is a question whether there should not be driers nearer the grain fields.

Further, apart from such emergencies as congestion due to export conditions or to unfavourable climatic conditions, a large increase in the production of grain may cause a congestion far beyond the existing transportation and storage capacity. The construction of the Canadian Northern railway and Grand Trunk Pacific railways east will undoubtedly do much to improve matters. But even then production might easily pass the handling capacity. Lastly, apart from all such emergencies and the ever occurring car shortage, the heart burnings among growers of grain caused thereby, the delay in getting inspection returns from Winnipeg, the delay in getting outturns from the terminal elevators, the difficulties in borrowing money due to such delay, and the widening spread between street and track prices as the close of navigation approaches, indicate that the time to consider whether there should not be a special effort made, not merely to enlarge, but to modify the present system of handling grain, has come.

DISTANCE BETWEEN THE GRAIN FIELDS AND THE TERMINAL POINTS.

The distance from Fort William to Winnipeg is	626 miles.
" " " Regina is	783 "
" " " Moosejaw is	819 "
" " " Lethbridge is	1,188 "
" " " Calgary is	1,267 "
" " " Saskatoon is	932 "
" " " Prince Albert is	986 "
" " " Edmonton is	1,253 "

At present there is not much storage capacity provided on the farm. Terminal elevator storage capacity is all at Fort William and Port Arthur. Inspection is done at Winnipeg and the terminal elevators alone. Under these conditions shippers of grain, say at Lethbridge, are subject not only to car shortage and high freights, but also to delayed inspection returns and delayed terminal outturns. They cannot finance on their grain on as good terms as if they knew sooner the grade, weight and dockage of their grain, and the greater the distance from the shipping point to the terminal the sooner does the spread between street and track prices tend to appear. It is not unnatural that grain growers in the more western sections of the grain area ask that inspection be brought nearer them.

COMPARISON BETWEEN CANADA AND THE UNITED STATES.

The grain fields of Alberta lie, on the average, over 1,200 miles from the terminal storage points and those of Saskatchewan about 800 miles. And between Fort William and the most westerly boundary of grain growing in Canada there is no interior storage elevator of large capacity, except the new one now being erected by the Canadian Pacific Railway at Winnipeg, and there is no inspection point west of Winnipeg for east going grain. In the grain area south of the boundary line very different conditions exist. The spring wheat fields of Minnesota and North and

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South Dakota lie, on the average, not more than 600 miles from Minneapolis and Duluth, with terminal storage capacity of about 72,000,000 bushels. The winter wheat fields further south lie within easy reach of Kansas City, with a terminal storage capacity of nearly 12,000,000 bushels, of Omaha with interior storage of over 7,000,000 and of St. Louis with about 11,000,000 bushels. These winter wheat fields are, on the average, about 500 miles from Chicago with a storage capacity of over 28,500,000 bushels, and a similar distance from Galveston with 4,000,000 and New Orleans with about 5,400,000 bushels.

In the United States large storage elevators are, therefore, not confined to ports on lake and sea, but are found throughout the whole grain growing area at strategic points for assembling, marketing, milling and distributing the grain. Several states have each their own inspection department, and some of these states carry on inspection at a number of points within the state. Minneapolis maintains local inspection offices at St. Cloud, Sleepy Eye, New Prague, New Elm and Kasota, in Minnesota, and at La Crosse in Wisconsin. These local inspections serve the purpose of assisting the milling industry at the points named.

Illinois maintains inspection, not only at Chicago, but at Joliet, Decatur, Kankakee and East St. Louis, and quite large quantities of grain are inspected at some of the points. Grain dealing is not concentrated in any one market but it is carried on in several highly important markets throughout the country. Chicago, for example, receives grain from areas as far off as Kansas, Nebraska, Minnesota and South Dakota. St. Louis receives grain from Illinois, Kansas, Iowa, Nebraska, Minnesota and Dakota, and Kansas City ships grain to St. Louis, Chicago, Toledo and Minneapolis. Terminal storage and inspection are brought nearer to the producer and alternate shipping routes are open, each shipping route well equipped with transportation, storage and inspection facilities.

The federal system of inspection has undoubted advantages over the states or provincial system, as, for example, in regard to uniformity of grades. But as the grain fields grow in area and as they extend west and north, grain shippers in the farther parts of the field feel more acutely the delay in getting grades and outturns. Whatever difficulties the states or provincial system of inspection may have it undoubtedly brings inspection, terminal storage and trading nearer to the shipper, and it appears to enlarge the facilities required for the quick handling of grain.

ADVANTAGES CLAIMED FOR LARGE INTERIOR TERMINAL ELEVATORS.

First. They would bring inspection and terminal storage nearer to the grain producer, and thus secure for him quicker returns and better financial terms.

Second. Grain stored at such points could be shipped by any of the alternative routes available, according to conditions, by the Panama canal and Hudson bay routes, if practicable, and in the event of the duty on grain being lowered or removed, south also.

Third. Such elevators would be equipped with cleaning and drying apparatus, would lead to the erection of hospitals and would thus make the best possible provision for such conditions as obtained last year.

Fourth. Such elevators would tend to assist the milling industry in the west. Under present conditions only the very largest mills can buy to advantage. Smaller mills buy from local elevators and from farmers and buy at a disadvantage, not having official grades and not having large stores of grain to draw from.

Fifth. Such elevators would tend to preserve in existence local grain dealers and independent buyers.

Sixth. Such elevators would tend to distribute the shipping of grain more equally throughout the year, and especially in the more western sections should the Panama canal route prove feasible.

Seventh. Such large interior elevators would in general provide that reser storage capacity which western Canada now lacks, would, therefore, provide for emergencies, whether of production, climate or congestion; would bring inspection into closer relation with production; and would thus secure for the grain growers of western Canada those advantages of quicker returns and alternate shipping routes which they can now only observe south of the boundary line.

OBJECTIONS TO INTERIOR TERMINALS AND INSPECTION.

The objections to interior terminals and inspection are summed up in the following extract from the Report of the Royal Commission on the Grain Trade of Canada (1906):—

'As a suggested relief to the car shortage in the country, a proposition was made by the grain growers' associations and individual farmers that the government should build and operate at certain convenient points large interior storage elevators having facilities similar to those in the terminal elevators at Fort William, so that the grain might be shipped to them from shipping points throughout the country in the cars that were available, and by reason of the fact that the haul would be very short, that cars could return quickly to the country for another load, in this way moving from two to four times the amount of grain from the country shipping point that they would, if going on the long haul direct to Fort William. Another argument advanced in favour of these elevators was the fact that farmers and others shipping to them would get official weights and grades and be able to sell in the elevator or raise more money on the grain.

We believe that this plan is not practicable for the following reasons:—

1. It would entail extra expense of handling, the payment of stopover charges to the railways, and the expense of inspectors and weighmen.
2. Extra loss to the grain in handling and rehandling.
3. These elevators must of necessity be very substantial and costly, and when the time comes that the railways are in a position to supply sufficient cars to carry a reasonable proportion of each season's crop, these interior storage elevators would be useless.
4. In evidence received from the grain merchants and elevator men, they claim that they would not store grain in these interior elevators because it would not be available for market requirements, and on the opening of navigation it would still have to be forwarded to the head of the lakes.
5. But the great objection to this scheme is the difficulty of getting shippers to send their grain to these elevators. For them to be of any value the grain would have to be kept in store until at least the first of April, otherwise they would not get any relief to the car situation. To obtain supplies for these elevators, it would be necessary to take an arbitrary course with the shippers of grain and compel them to ship to the interior storage elevators. Any shipper of grain who would get a car through the order book in the usual course, would naturally want to ship his grain to Fort William, so that he might sell it at track price of the day, which in ordinary years would be from three to five cents a bushel more than it would be worth in the interior storage elevator.'

In dealing with these objections, it should be observed that the provision of inspection and elevator facilities for the Hudson bay and the Panama canal routes along the lines favoured by the Board would not mean the erection of the interior elevators at indiscriminate points in the interior. Certain conditions should be laid down which should be fulfilled.

1. *Location.*—There would be a disposition on the part of many towns and cities in the west to ask that elevators be constructed in their respective places. It would be easy to erect too many, and it would also be easy to locate them so that they would

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not best fulfil their functions. It should be borne in mind from the beginning that a terminal elevator in the interior ought to be located so that shippers could avail themselves of different routes. Theoretically, the routes possible are the eastern as at present, the southern via the United States ports, and western via the Panama canal, and the northern via Hudson bay. Elevators should only be erected at points so located that shippers could avail themselves of all practical routes.

2. *Capacity.*—It should be remembered that the working part of a terminal elevator is more expensive than the storage part, and that a working capacity of half a million bushels could supply four and a half million bushels of storage. If the working house capacity were half a million bushels and the storing capacity to begin with, a million and a half, the total capacity would be two million bushels, and the same working house would permit of extensions to the storing capacity in future.

The cost of building elevators on land is less than upon water. There is no piling to be done and no dredging; no wharf needs to be built, and no revetment wall; the foundations are easier and the work can be done more quickly. It is estimated that a five million bushel elevator can be built on the land for one million dollars, excluding the price of the site.

A five million bushel elevator would be relatively cheaper than a two million bushel one, but to begin with, if the minimum capacity required two million bushels, that is to say one and a half storage and a half million for the working house, the storage could be increased with very little expense.

3. *Equipment.*—The existing terminal elevators are not all properly equipped for handling flax. This has led to great difficulties in handling the flax crop this season. It should be remembered that flax is a difficult crop to handle; that a house and equipment might be very well fitted to handle wheat and very poorly fitted to handle flax. As the flax crop, however, is increasing every year, every new terminal erected should be required to install equipment fitted to clean and handle flax. Further, the existing terminal elevators are not all equipped for drying grain. In last year's crop, this led to serious trouble. New terminal elevators should be required to install drying plants of a capacity of 1,000 bushels per twenty-four hours. In general, it should be a condition of such elevators that they be equipped with all the necessary apparatus for handling grain of all kinds.

4. *Inspection.*—These new elevators should be recognized as terminals. They should not only receive, store and ship grain, but they should be under state supervision similar to that of existing terminal elevators at the head of the lakes, and they should stand in equally close relation to inspection. Official grades and weights should thus be given, and inspection at these terminals would thus be part of the western inspection, which, under the Canada Grain Act, is final. Grain grown in western Canada is inspected at Winnipeg and at the terminal elevators. It is subject to reinspection and to appeals to the Survey Board, but is not subject to seaboard inspection. All this should also apply to interior terminal elevators. Further, on the Winnipeg Grain Exchange grain sold in store means in store at the lake terminals. Interior terminals should be on the same footing.

5. *Public Elevators.*—Such interior terminals would be regarded as public terminals in which mixing of grades should not be allowed. Should a sample market be developed and should there be a demand for private elevators in the interior, this should be left to private enterprise.

THE OBJECTIONS CONSIDERED.

It is to be noted in general that it was not necessary for the Royal Commission of 1906 to advise as to the best way of providing inspection and elevator facilities for the Hudson bay and Panama canal routes, and the Royal Commission assumed that the grain stored in interior terminals would have to be shipped via the eastern route.

The first and second objections deal with additional cost and loss. The multiplicity of inspection points is certainly not profitable nor desirable, but a limit would be set by consideration of the shipping routes. There would be an initial difficulty in securing competent inspectors, but given these, the uniformity of grades could be maintained, and it is not improbable that some of the unprofitable existing inspection points could be done away with.

The additional handling of the grain necessary can be easily exaggerated. Grain going east to-day is handled at the terminal and also handled at the transfer house. Grain going west via the Panama canal would be handled the same way. Grain going north of the Hudson bay would be in the same position. Grain going east during the season of all rail shipment would go direct from such interior terminals to the eastern houses. Grain going east during the period of open navigation would be subject to additional handling if it had been stored in the interior terminals.

It is also to be noted that grain stored in the interior terminals would be cleaned and dried when necessary there, and that as the average dockage runs about two per cent and the amount of moisture extracted from damp and wet grain runs as high as ten per cent, there would be a saving on freights. Official grades and weights would be given in the interior terminals and this would afford the shipper not only quicker outturns but an added protection against loss in transit.

The third objection is based on a certain optimism which the Board would like to feel. The day may come in Canada when the railways will have tracks, cars and engines enough to enable the grain to be handled with the minimum amount of storage capacity. If farmers provided their own storage, and if there were ideally adequate land and water transportation facilities, less elevator storage capacity would be needed. But that day is not in sight, and in the meantime and for some time to come, storage capacity must be provided somehow and upon a different principle than that of such ideal facilities.

The fourth and fifth objections rest upon the same ground, that of transportation. Grain merchants and elevator operators would not use interior terminals preferring to have their grain at the head of the lakes, and shippers would actually have to be coerced to ship grain to them as they too would want to store at the head of the lakes. It would certainly be a pity to have to use coercion in such a matter, but it is by no means certain that coercion would be necessary. Grain stored in the interior terminals for shipment via the Panama canal would be available all the year. Grain stored in the interior terminals for shipment via the Hudson bay would be available during the open season. Grain stored in either set would be available for shipment all rail east during winter. The objection applies to east going grain while navigation is open. Granted that this objection is both real and relevant, it does not follow that it is strong enough to justify the rejection of a policy which would secure for shippers quicker returns and better financial terms; would tend to aid the milling industry throughout the west; would form part of the equipment best fitted to serve the Panama canal and Hudson bay routes; would if these routes prove practicable offer alternative routes to the markets; would provide the extra storage which is needed, and would afford that reserve storage capacity that is the only safe provision against emergencies.

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(4) TERMINAL ELEVATORS AT FORT WILLIAM AND PORT ARTHUR.

1. A GOVERNMENT ELEVATOR.

The lake terminals fall in three classes:—

- (a) Elevators owned and operated by railway companies.
- (b) Elevators owned and operated by grain companies.
- (c) Elevators owned by railway companies and leased to and operated by grain companies.

The grain companies owning and operating their own terminal elevators refuse to lease them to the government voluntarily, some of them on any terms whatever and others on any terms that could be recommended by the Board. They claim that their terminal elevators are each a part of a system of which large lines of interior elevators are also a part; that the terminals are fed by their interior elevators; that to lease their terminals would dislocate their whole system; that the interior elevators without the terminals would not pay; that they would, therefore, suffer from disarrangement of their whole business and a loss of capital legitimately invested, with the probability that at the expiration of the lease the terminals would be thrown back on their hands. The grain companies operating leased terminals take the same stand. They claim that they have built lines of interior elevators just because they have been able to lease the terminals, and their case is similar, therefore, to that of the others. If, therefore, grain dealing companies are to be eliminated from the business of owning and operating terminal elevators the procedure must be by outright purchase in the case of companies that own terminals, and by breaking the leases in the cases of those companies that have leased terminals from railway companies.

Apart altogether from the question whether such a policy was desirable, the Board was confronted with the difficulties involved in carrying out such a policy concurrently with other things that appeared to be at least equally desirable. The expropriation and all that it involved, the dislocation of the system of handling grain built up under the law, the preparation for the operation of the lake terminals by the Board—these were matters so serious in themselves that if attempted they would have claimed the whole time and energy of the Board, and would have lead to the postponement of other important matters. Further, the greatest immediate need as regards terminal elevator facilities at the head of the lakes is that of increasing the facilities. The building of terminal elevators had come to a standstill at Fort William and Port Arthur, and it required no lengthened investigation to discover that in the matter of storing, cleaning and drying capacity, the lake terminal facilities were inadequate. The Board, therefore, decided to recommend the government to build a large elevator thoroughly equipped for storing, cleaning, drying and handling grain. The Board considered that in this way they would acquire a knowledge of terminal elevators that would be invaluable, increase the capacity at the head of the lakes, and have both time and money left for the provision of inspection and terminal elevator facilities for the Hudson bay and Panama canal routes. The Board also decided to approve of the leasing of one of the Canadian Pacific elevators by the Grain Growers' Grain Company, considering that in this way the grain growers of western Canada would also gain first hand knowledge of terminal elevator conditions. The Board further decided to strengthen the inspection and supervision of the terminal elevators by every means in their power.

2. TARIFF OF ELEVATOR CHARGES.

Approved by the Board for year ending September 1, 1913.

"Receiving, elevating, cleaning, spouting, insurance against fire, and storage for the first fifteen days—Three-quarters of one cent ($\frac{3}{4}$ c.) per bushel.

On condemned, heating, binburnt grain, or grain mixed therewith—Double the foregoing rate.

Storage, including insurance against fire, for each succeeding day or part thereof, after the first fifteen days—One-thirtieth of one cent ($\frac{1}{30}$ c.) per bushel.

On wheat carrying a return of screenings, an additional cleaning charge of—One-half of one cent ($\frac{1}{2}$ c.) per bushel.

On grain carrying a return of other grain of commercial value for each recleaning, an additional charge of—One-half of one cent ($\frac{1}{2}$ c.) per bushel.

Exception—Separating flax from other grains—One cent (1c.) per bushel.

On wheat, scouring—Three cents (3c.) per bushel.

On tough grain, drying—One and one-half cents ($1\frac{1}{2}$ c.) per bushel.

On damp or wet grain, drying—Four cents (4c.) per bushel.

On screenings: elevating, spouting, insurance against fire and storage for the first fifteen days—Two and one-quarter cents ($2\frac{1}{4}$ c.) per hundred pounds.

On screenings: storage, including insurance against fire, for each succeeding day or part thereof after the first fifteen days—One-tenth of one cent ($\frac{1}{10}$ c.) per hundred pounds.

On bulkheads, for their removal and other additional expense in handling and unloading car—Three dollars (\$3) for each bulkhead.

For preparing cars for flax shipments—Two dollars (\$2) per car.

Unspecified grain will only be received, stored and treated subject to special charges to be agreed upon at the time, subject to the approval of the Board of Grain Commissioners.

All charges for cleaning, drying, scouring, or other treatment will be computed on gross weights; for elevation and storage, on net weights. All charges earned after issue of initial completed outturn and expense bill will follow the grain. All charges whatsoever must be paid before shipment.

WHEAT SCREENINGS.

On wheat carrying a dockage of five per cent (5%) or more, after deducting one and one-half per cent ($1\frac{1}{2}$ %) of the gross weight for waste, a return will be made for the balance of the screenings. No other returns for screenings will be made.

If disposition of screenings covered by outstanding returns is not received within thirty (30) days from date of unload they may be disposed of for account of whom it may concern.

NO GRADE AND CONDEMNED GRAIN.

All tough, damp, wet, condemned, heating or heated grain may always be refused. If received and stored it will be only under special contract and will always be at the owner's risk of deterioration. Tough grain will only be received subject to one per cent (1%) shrinkage for moisture."

These rates are the same as those filed during the previous year, except in the case of drying damp or wet grain. The Board approved of an increase in this rate in order to increase the drying capacity of the elevators. This has already been referred to.

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3. THE REGISTRATION AND CANCELLATION OF WAREHOUSE RECEIPTS.

The registration and cancellation of warehouse receipts had been done by the Lake Shippers' Association for the Winnipeg Grain Exchange. The cost of the work was met partly by fees levied upon the terminal elevators and partly by a contribution of \$5,000 per annum from the Department of Trade and Commerce. The Board took this work over. It did so in order to secure first hand information about grain conditions, and in the interest of a more effective supervision of the terminal elevators. The Board, further, fixed registration and cancellation fees at 4 cents per 1,000 bushels each to be paid by the terminal elevator companies with the object of making these offices self supporting.

Two offices are required for this work, one in Winnipeg and one in Fort William. The Board sought to have a satisfactory system and to have a correspondence between the forms and records used in the inspection department and those required for registration. The services of a chartered accountant were needed, and Mr. Henderson of Winnipeg was employed.

There has been no difficulty found in the work itself, and there has been no delay to the movement of grain caused by the fact that registration is now in the hands of the state.

The chief difficulty encountered so far is said to be due to the strike on the Canadian Pacific Railway. The Canadian Pacific Railway Company fell far behind in the matter of registration and cancellation, and it has not yet overtaken the work, although it soon will. Whether because of the strike or for some other reason, Mr. David Horn also fell behind, and so did the Grain Growers' Grain Company. It is somewhat curious that the difficulty in having the law complied with has been so far with the Canadian Pacific Railway, David Horn and Company, and the Grain Growers Company. The registration and cancellation of warehouse receipts affords a better means of supervising the elevators than the previous method of bin records, and the Board proposes to utilize the former instead.

Registration also enables the Board to ascertain whether there is such a thing as loaning of grain. During the season of open navigation there were two cargoes in particular, one loaded by the Canadian Pacific and the other by the Grain Growers Grain Company, that present matter for inquiry. While desiring to facilitate despatch in every way, it is not the intention of the Board to permit anybody to interfere with grain upon which they have no claim.

4. SHORTAGES IN WEIGHTS.

Very many complaints have been made to the Board in regard to weights. These complaints came from country elevators and shippers, from lake steamers and eastern elevators, and from some terminals against others; and they all were directed against the weights given in the terminal elevators.

Good weighing needs both accurate scales and careful weighmen, and errors may be due to either the mechanical or the human factor. It would appear, therefore, that investigation of alleged shortages should include both factors, and that any board charged with the task of conducting such investigations should have authority to investigate both. As the supervision of scales is under the Department of Inland Revenue, the Board of Grain Commissioners had no power in regard to the mechanical factor, and this restriction made the investigations farcical. One department of state guaranteed the accuracy of the scales in the terminals, and another department appointed the men. Terminal weights were thus official state weights in both senses—which could not be said of the weights in other elevators; and if one terminal weight differed from another, both were official.

It appeared to the Board that one department should control both factors in weighing, and that either the responsibility for the weighing should be handed over

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to the Inland Revenue Department, or that some control of the scales should be given to the Board of Grain Commissioners. And the importance of the grain trade appeared to justify special attention to elevator scales. The ministers of the two departments concerned made an arrangement according to which the inspector of scales in the terminal elevators is an officer of the Board of Grain Commissioners. This officer is a competent scale man, a qualified grain inspector, and is familiar with elevators.

It appears to be generally assumed that when terminal weights differ from the weights given at country elevators or eastern elevators, the terminal weights must be wrong.

Yet so far as official inspection of scales was concerned all were on the same footing, and so far as all the other conditions of accurate weighing were concerned, the terminals were better equipped than either the country or the eastern elevators. The larger scales, the expert weighmen, the system of checking and the supervision by the state weighmen—these placed the terminals in a better position to weigh than the other elevators. Further, the inspectors, present only in the terminal elevators, do work which contributes to accurate weighing.

There is no comparison between these conditions and the conditions existing in some of the eastern elevators. Neither in regard to scales, weighmen, means of checking or state supervision of weighing, can either the interior elevators or the eastern transfer houses claim the right to have their weights taken in preference to terminal weights without further inquiry, nor can implicit trust be placed even in the tallymen of the lake steamers.

While all this is true, the Board are endeavouring to improve the conditions that tend to accurate weighing at the terminals. Hitherto weighing has been subordinate to grading and has received much less attention. Yet correct weights are as important as correct grades, and it would have been equally rational to have subordinated grading to weighing. The Board propose to co-ordinate the two, to make weighing equal in importance with grading, to reorganize the whole weighing staff for that purpose, and to create a weighing department, not secondary to or dependent upon, but co-ordinate with the inspection department. By so doing, and by giving constant attention to the mechanical conditions of weighing, the Board expect to remove many sources of trouble and complaint with regard to the discrepancies in weights between interior and terminal elevators. Proposals have been made and investigated by the Board of Railway Commissioners along the lines of stencilling cars. The Board of Railway Commissioners have referred this matter to the Board of Grain Commissioners and it will be considered at an early date.

5. STOCKTAKING IN THE TERMINALS.

The terminal elevators were weighed up during the month of August. The work was done by the most expert officers of the Board. When stocktaking was completed, statements were prepared by the inspectors showing the weights, grades and kinds of grain in each elevator at the 31st of August. The warehouse receipts outstanding against the grain were tabulated and, as far as possible, all details were checked by the registration department.

ADJUSTMENT OF SHORTAGES.

The elevator companies were required to make good all shortages. They did so either by taking from an overage of a higher grade sufficient grain to meet the shortage of a lower grade, or by purchasing grain of the grade required. After this adjustment was made the net surplus or shortage remained.

Some of the elevators state that the surplus grain below is the result of two years' operation and the Board has no means of questioning this statement. On the

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other hand in the absence of official records of registration and cancellation, the Board has no means of proving that some of the elevators did not ship out some of the surplus grain. Had registration and cancellation of warehouse receipts been in the hands of the state, this uncertainty would have been avoided. The following figures are, therefore, subject to this qualification as regards the past:—

STATEMENT of the Net Surpluses in the Terminal Elevators, as of August 31, 1912.

	Wheat.	Oats.	Flax.	Barley.
Ogilvies.....				432 34
Consolidated.....	2,733 50		2,009 38	273 12
Western.....	4,138 30	3,131 24	214 24	
Grand Trunk.....	11,074 50	26,368 26		
Empire.....	53,831 20		13,340 00	8,395 45
Thunder Bay.....	45,894 00	907 26	7,093 00	2,831 39
Port Arthur.....	63,891 50	22,045 10	19,492 32	10,896 18
C. P. R.....	} Figures not supplied.			
D. Horn & Co.....				
Total.....	181,564.20	52,553.18	42,149.43	22,830.04

6. SOURCES OF SURPLUSES IN THE TERMINAL ELEVATORS.

1. Since the beginning of the grain trade it has been customary to allow the terminals one bushel per car on wheat and flax and 100 pounds per car on oats and barley.

2. On all 'No grade' grain the terminals exact one per cent of the gross amount, to cover loss due to moisture.

3. The dockage set by the inspector to clean grain to the required grade, when such dockage is under five per cent.

4. The entire dockage on flax, oats and barley (other than domestic grain).

5. The dockage (other than domestic grain of commercial values) on all cleaned to clean cars, officially designated as 'C.C.'

6. Recleaning of screenings.

7. OWNERSHIP OF SURPLUSES IN TERMINAL ELEVATORS.

The first of the above sources of the surpluses is a trade custom. In the United States the amount allowed is less than in Canada—but with this important difference, the custom exists there also. Sources 2, 3, 4 and 5 have legal sanction. Further, the state weighs the grain in and out, grades it in and out, sets the dockage, and supervises the binning at least sufficiently to be chargeable with the responsibility of it. It would appear, therefore, that so far as any surplus is due to the first five sources enumerated, it is the property of the terminal elevators. The Grain Act gives the Board no power to confiscate such surplus, or control the destination of it. So far as the recleaning of screenings is concerned, it involves questions that appear to be open.

It is obvious that if it were advisable to reduce the surpluses that could be legitimately expected in terminals, a reduction could be effected by:—

1. Reducing the amount allowed per car by fifty per cent.

2. Reducing the amount allowed on 'No grade' grain.

3. Reducing the amount of dockage allowed, and especially restrictions *re* the recleaning of screenings.

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The possible effect of reducing the amount allowed per car may be estimated by comparing the total surplus reported with the amount attributable to this trade custom.

	Wheat.	Oats.	Flax.	Barley.
Total surplus.....	181,564.20	52,553.18	42,149.43	22,830.3
Amount due to Trade Custom.....	69,275.00	40,569.00	4,560.00	4,100.0

How much of the surplus is attributable to each of the other sources named cannot be estimated.

STATEMENT showing Total Amount of Grain Handled, Surplus of August 31, 1912 and Percentage of Surplus.

OGILVIE FLOUR MILLS.

	Bushels handled.	Bushels surplus.	
Barley.....	93,831	432	$\frac{1}{2}$ of 1%

CONSOLIDATED TERMINAL ELEVATOR CO.

Wheat.....	9,943,834	2,733	1.39 of 1%
Barley.....	137,177	273	.002 of 1%
Flax.....	928,326	2,009	1.22 of 1%

WESTERN TERMINAL ELEVATOR CO.

Wheat.....	7,843,444	4,138	1.36 of 1%
Oats.....	897,454	3,131	1.28 of 1%
Flax.....	1,201,898	214	.0017 of 1%

GRAND TRUNK TERMINAL ELEVATOR CO.

Wheat.....	8,828,505	11,074	$\frac{1}{8}$ of 1%
Oats.....	3,838,045	26,468	$\frac{2}{3}$ of 1%

EMPIRE ELEVATOR CO.

Wheat.....	11,516,024	53,831	.47 of 1%
Barley.....	434,345	8,395	2%
Flax.....	1,082,908	13,340	$\frac{3}{4}$ of 1%

THUNDER BAY ELEVATOR CO.

Wheat.....	6,863,904	45,894	$\frac{3}{8}$ of 1%
Oats.....	1,980,685	907	$\frac{8}{8}$ of 1%
Barley.....	424,557	2,831	$\frac{1}{2}$ of 1%
Flax.....	174,358	7,093	23%

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d by STATEMENT showing Total Amount of Grain Handled, Surplus of August 31, 1912,
rad and Percentage of Surplus—Continued.

PORT ARTHUR ELEVATOR CO.

Wheat.....	24,280,179	63,891	$\frac{2}{10}$ of 1%
Oats.....	6,807,706	22,045	$\frac{1}{10}$ of 1%
Barley.....	959,971	10,896	$\frac{1}{10}$ of 1%
Flax.....	1,173,123	19,494	2%

OVERS AND SHORTS BY GRADES.

WESTERN TERMINAL ELEVATOR COMPANY.

Wheat—	Overs.	Shorts.	Surplus
1 Northern.....	789·20		
2 Northern.....	1,149·40		
4 Northern.....	694·50		
N.G. 4 Tough.....	1,333·50		
N.G. 5 Tough.....	164·40		
Rej. 3.....	1·20		
Rej. 4.....	3·00		
Rej. 4 Mixed.....	2·50		
			<u>4,138·30</u>
Oats—			
2 C.W.....	2,345·02		
2 feed.....	379·04		
x1 feed.....	407·18		
			<u>3,131·24</u>
1 N.W.....	157·42		
1 Man.....	20·54		
Rej. Flax.....	35·40		
			<u>214·24</u>

OGILVIE FLOUR MILLS.

Barley—			
3 C.W.....	1,795·20		
4 C.W.....		1,362·34	
			<u>432·34</u>

CONSOLIDATED TERMINAL ELEVATOR.

Wheat—	Overs.	Shorts.	Surplus
1 Northern.....	38.00		
2 Northern.....	231.20		
3 Northern.....	685.10		
4 Northern.....	2,038.50		
6 Northern.....		2,202.50	
5 Northern.....	784.00		
Feed.....		2,090.10	
Rej. 3.....	7.30		
Rej. 4.....	112.40		
Rej. 1-2.....		16.20	
Rej. 1-3.....	1,297.00		
Rej. 1-4.....	33.20		
Rej. 2-2.....		12.20	
Rej. 5.....	515.30		
Tough 3.....		655.30	
Tough 4.....	550.50		
Tough 5.....	670.10		
Tough 6.....		292.20	
Tough feed.....		336.30	
Tough Rej. 4.....	24.40		
3 A.R.W.....		1,085.20	
R. W.....		164.40	
5 Winter.....	9.30		
4 White.....	2.10		
Rej. 4 Wheat & Oats.....	2,592.20		
Rej. 4.....		3.10	
	9,593.00	6,859.10	2,733.90
Barley—			
3.....	47.30		
Feed.....	2.24		
Rej.....	223.06		273.10
Flax—			
1 N. W.....		283.20	
1 Man.....	1,498.26		
Rej.....	224.48		
Tough 1 Man.....	1.23		
Tough Rej.....		7.22	
Condem.....	620.47		
Damp Rej.....		45.08	
	2,345.32	335.50	2,009.82

THUNDER BAY ELEVATOR COMPANY.

Wheat—	Overs.	Shorts
1 Northern.....	22,887.50	
2 Northern.....	9,929.30	
3 Northern.....	13,076.40	
Oats—		
1 C. W.....	907.26	
Barley—		
4 C. W.....	2,831.39	
Flax—		
1 C. W.....	3,542.00	
2 C. W.....	3,551.00	

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EMPIRE TERMINAL ELEVATOR COMPANY.

<i>Wheat—</i>	Overs	Shorts
1 Hard.....	184.10	
1 Nor.....	5,098.40	
2 Nor.....	42,863.20	
3 Nor.....	1,637.20	
2 Nor. Rej.....	4,047.50	
<i>Barley—</i>		
No. 3 C. W.....	1,082.06	
No. 4 C. W.....	4,992.27	
Feed.....	527.44	
Rej.....	1,245.40	
N.G. Rej. Tf.....	337.14	
N.G. Fe. Tf.....	210.10	
<i>Wheat—</i>		
Rejected.....		13,340.00

GRAND TRUNK PACIFIC ELEVATOR COMPANY.

<i>Wheat—</i>	Overs	Shorts	Surplus.
1 Northern.....		2,740	
Dried 1 Nor.....	830		
2 Northern.....		1,611	
Dried 2 Nor.....	1,507.20		
3 Northern.....	3,085.40		
Dried 3 Nor.....	846.40		
No. 4.....	3,753.50		
Dried 4.....		391.20	
No. 5.....	1,712.40		
Dried 5.....	6,036.10		
No. 6.....		2,245.40	
Dried 6.....	1,317.40		
Feed.....		2,401.20	
Dried Feed.....		2,033.50	
Rej. No. 5 Mxd. Htd. }			
Rej. No. 6 Mxd. Htd. }			
Rej. Fd. Mxd. Htd. }		9,674.40	
4 R. W.....	3,530		
R. 2 Nor. Smutty.....	544.10		
R-4.....	932.10		
R-5.....	1,025.00		
R-6.....	2,046.30		
R-Fd.....		28.30	
R-4 Mxd. Htd.....		1,321.50	
R-3 Nor. Mxd. Htd.....	2,012.20		
Condemned.....	4,484.40		
R-2 Nor. Seedy.....		430.10	
R-3 Nor. Seedy.....	10.10		
R-4 Nor. Seedy.....	221.50		
R. 2 Nor. Mxd. Htd.....	1,494.10		
2 Nor. Musty.....		912.30	
3 Nor. Musty.....		1,055.00	
R-3 Nor. Smutty.....	2,133.20		
	33,208.20	22,133.30	11,074.50
<i>Oats—</i>			
2 C. W.....	9,385		
3 C. W.....		2,339.18	
Ex. 1 Fd.....	11,098.28		
1 Feed.....	6,464.14		
2 Feed.....		1,327.20	
Condemned.....		948.24	
Cond. 2 Feed.....	228.28		
R-2 C. W. and R-1 Fd.....	1,956.08		
R-3 C. W. and R-1 Fd.....	938.32		
R. Oats and R. 2 Fd. Mdx. Htd.....	506.02		
R. Oats acc. Barley.....	506.10		
	31,084.20	4,615.28	26,468.26

GRAND TRUNK PACIFIC ELEVATOR COMPANY—Continued.

Barley—	Overs	Shorts	Surpl
No. 3 Bly.....	4,202.15		
4 Bly.....		697.44	
Rejected.....	1,260.20		
Feed.....		838.26	
Dryed B. 3 Musty, Mxd. Htd.....	884.42	1,248.46	
Dryed B. 4 Mxd. Htd.....		672.38	
Dryed B. Fd. Mxd. Htd.....			
	6,347.29	3,456.54	

GRAND TRUNK ELEVATOR COMPANY.

Flax—	Overs	Shorts	Surpl
1 N. W.	1,310.15		
1 Man.....	623.02		
Rejected.....	3,133.02		
Condemned.....		1,733.50	
Rej. Mxd. Heated.....		2,116.54	
	5,066.19	3,850.48	1,20

PORT ARTHUR ELEVATOR COMPANY.

Wheat—	Overs	Shorts
1 Northern.....	19,006.40	
2 Northern.....	44,778.10	
Dried 2 Northern.....		6,101.00
3 Northern.....	15,855.30	
4.....		22,992.00
5.....		33,279.50
6.....		49,901.40
Feed.....	16,385.40	
Rej. 1 Nor. acc. Seeds.....	4,168.40	
Rej. 2 Nor.		874.50
Rej. 3 Nor.	4,054.20	
Rej. 4 Bly.....		
Rej. 1-1 Nor. Smutty.....		3,481.10
Rej. 1-2 Nor.		819.
Rej. 1-3 Nor.	2,762.20	
Rej. 2-3 Nor.	2,453.50	
Rej. 1-4	3,874.40	
Rej. 2-4	5,236.30	
Rej. 1-5		711.30
Rej. 2-5	10,801.50	
Rej. 1-6	1,243.20	
Rej. 2-6	188.20	
Rej. 2 fd.	732.30	
Rej. 2 Nor. Mxd. Htd.....	460.50	
Rej. 3 Nor.	7,717.40	
Rej. No. 4	1,060.20	
Rej. No. 5	2,276.40	
Rej. No. 6	3,775.00	
Rej. Feed	158.30	
Rej. 3 Nor. Mxd. Bly. and Htd.....		63.30
Rej. 2-3 Nor. Mxd. Htd.....	1,344.00	
Scoured 3 Nor.....		1,701.00
N. G. 2 Nor. Tf.....	5,964.20	
N. G. 3 Nor. Tf.....		115.20
N. G. No. 4 Tf.....	5,889.50	
N. G. No. 5 Tf.....	13,542.10	
N. G. No. 6 Tf.....	23,517.30	
N. G. Feed Tf.....	8,669.30	
Dried Rej. 3 Nor. acc. Seeds.....	569.10	
N. G. 2 Nor. Tf. and Htd.....		2,330.50
N. G. 3 Nor. Tf. and Musty.....	1,079.40	
N. G. No. 4 Nor. Tf. and Musty.....	578.00	
Dried No. 5 Heated.....	935.00	

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PORT ARTHUR ELEVATOR COMPANY—Continued.

heat—	Overs	Shorts	Surplus
N. G. and Dry Reg. 2 Nor. mxd. htd.....	2,114.50		
“ “ 3 “ “	2,114.50		
“ “ 4 “ “		1,163.20	
“ “ 4 “ “		1,586.40	
“ “ “ and Seedy.....	543.20		
“ “ 3 Nor. Mxd. Htd.....	1,039.10		
“ “ No. 5 Htd.....	962.30		
“ “ No. 6 Htd.....	3,012.30		
“ “ Feed Htd.....	608.00		
N. G. Reg. 2-4 Tf. and Smutty.....	13.30		
“ 2-6 “ Htd.....	4,106.40		
Dry. Reg. No. 4 Mxd. gravel.....			
Reg. Wht. Mxd. Oats.....	1.40		
Dry Cond. No. 6 Htd.....	257.00		
“ Fd. Htd.....		1,720.10	
“ Htd. Wheat.....	4,210.30		
Cond. Wheat.....		42.20	
Reg. 2 Nor. acc. Bly.....		962.20	
“ 3 Nor. Earth Gravel.....		108.20	
Scoured No. 4.....		1,654.20	
“ No. 2 Fd.....		972.10	
“ 2-3 Northern.....		3,869.30	
Reg. Cond. 3 Nor. acc. Htd.....		384.00	
N. G. No. 4 Tf. Reg. acc. Seeds.....		169.20	
N. G. Tf. Cond.....		1,985.20	
Dried Reg. 3 Nor. acc. Htd.....		1,197.00	
“ Reg. 1-3 Nor.....		980.00	
“ Cond. 3 Nor. Heated.....		260.50	
“ 3 Nor. Mxd. Bly.....		990.00	
“ 3 Nor. Musty.....		228.00	
“ Reg. No. 4 acc. Bly.....		945.20	
“ Reg. 2-4.....		1,069.40	
“ Reg. No. 4 Musty.....		1,332.10	
“ 2-5.....		1,564.50	
“ 1-No. 5.....		397.00	
“ Cond. No. 6.....		625.20	
“ Reg. 2-6.....		2,623.00	
“ Feed. Cond.....		906.00	
“ Feed Musty.....		937.20	
“ Reg. acc. Htd.....		904.10	
“ Cond. Smutty.....		360.00	
Reg. 2-2 Nor.....		1,101.40	
“ 2 Nor. acc. Gravel.....		32.00	
“ 3 Nor. acc. Heated.....		7,655.10	
Reg. 2 Nor. acc. Heated.....		2,107.40	
Cond. 3 Nor. Tf. and htd.....		384.00	
Cond. Heated.....		95.20	
Reg. No. 6 acc. Heated.....		705.20	
Reg. No. 4 Heated.....		72.10	
Reg. No. 4 acc. Heated.....		547.50	
	226,750.10	162,858.20	63,891.50

Oats—	Overs	Shorts
1 C. W.....	1,876.31	
2 C. W.....		8,057.03
3 C. W.....	11,271.28	
Ex. 1 Feed.....		5,402.12
1 Feed.....		3,610.20
2 Fd. and Dried 2 Feed.....		5,181.09
Rejected.....	3,029.14	
Reg. Ex. 1 Fd. Htd.....		1,654.10
Reg. 1 Feed Htd.....		668.12
Reg. 2 Feed Htd.....		877.32
Reg. No. 1 Mixed gravel.....		1,876.16
Reg. Htd. Mxd. Wht.....		642.32
Reg. 3 C. W. Heated.....		4,127.14
Dried and N. G. 2 C. W. Tf.....	657.20	
Dried and N. G. Ex. 1 Fd. Tf.....		433.32
Dried and Tf. 1 Feed.....	9,613.03	
Dried and Tf. 2 C. W. Musty.....	238.30	
Dried Reg. Ex. 1 Fd. Htd.....		2,115.10
Dried Reg. 2 Fd. Mxd. Htd.....	7,676.26	
Dried Reg. Heated.....	53,350.06	

PORT ARTHUR ELEVATOR COMPANY—Continued.

Oats—Con.		Overs	Shorts	Surplus
Dried and Tf. Rej. Mxd. Bly.....			49-26	
Dried Cond. Heated.....			2,327-14	
Cond. Heated.....			8,845-28	
Cond. Heated Tf.....			5,549-24	
Dried 2 C. W. Htd.....			1,421-00	
Dried 1 Feed Htd.....			1,767-00	
Dried 2 Feed Heated.....			1,165-00	
Dried Rej. 3 C. W. acc. Heated.....			438-00	
Tf. No. 1 Feed Heated.....			3,775-12	
Tf. 2 Feed.....			682-26	
Tf. 2 Feed Heated.....			770-26	
Tf. Rej. acc. Heated.....			647-18	
Tf. Rej. Heated.....			1,747-04	
Tf. 3 C. W.....			1,694-26	
Tf. Rej. 2 Feed Htd.....			89-14	
		87,714-22	65,669-12	22,045
Barley—		Overs	Shorts	
No. 3.....		19,568-41		
No. 4.....			6,868-12	
Feed.....			227-40	
Rej.....		5,159-09		
N. G. No. 3 Tf.....		1,	1,398-34	
N. G. No. 4 Tf.....		1,558-26		
N. G. Feed Tf.....			507-24	
Rej. No. 3 Mxd. Htd.....		4,085-40		
N. G. Tf. No. 3 Htd. and Musty.....		1,104-44		
Rej. Mixed.....			1,768-46	
Rej. Mixed with wheat.....			544-38	
Dried Rej. No. 3 Heated.....			1,761-04	
Dried No. 3 Heated.....			1,861-00	
Dried No. 4 Htd.....			3,184-00	
Dried Rej. No. 4 Htd.....		427-00		
Dry Feed Heated.....			1,352-18	
Dry Rej. Feed Htd.....			4,934-04	
Dry Cond. Heated.....		4,000-30		
Dry Cond.....			570-00	
		35,904-46	25,008-28	10,896-18
Flax—		Overs	Shorts	
1 N. W.....		7,569-10		
1 Man.....		9,919-37		
Rej.....		6,963-17		
Cond.....		1,874-20		
Rej. Heated.....			4,840-49	
Rej. Mxd. Heated.....		934-10		
Rej. 1 N. E. acc False Flax.....			1,156-24	
Rej. 1 Man. Heated.....			1,398-44	
Cond. Heated.....			957-52	
Rej. Cond. Heated.....			24-08	
N. G. Rej. Tf.....			8-02	
Cond. Frozen.....			423-40	
Cond. Musty.....			15-32	
Dry 1 Man. Htd.....		1,057-22		
		28,318-04	8,825-28	19,492-32

NOTE.—C.P.R. and D. Horn & Co., have not furnished the necessar yreturns.

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(5) HOSPITAL ELEVATORS.

1. *Public.*—The only public hospital elevator at the terminal point is that of D. Horn and Company. It treats grain for the public. In addition it is a storage elevator, and is, therefore, licensed and bonded as a terminal elevator. It has a capacity of 750,000 bushels.

2. *Private.*—The private hospital elevators handle only their own grain. They neither treat nor store grain for the public. They are, therefore, licensed and bonded as hospital, and not as terminal, elevators. The following have been licensed:—

Fenton Elevator Co., Fort William.. . . .	30,000 bushels
Davidson & Smith, Fort William...	80,000 "
Black & Muirhead, Fort William...	125,000 "
Superior Elevator Co., Fort William.. . . .	100,000 "
N. M. Paterson & Co., Fort William.. . . .	50,000 "
D. L. Bole, Fort William...	10,000 "
Muirhead Elevator Co., Fort William...	35,000 "
National Elevator Co., Port Arthur...	65,000 "

CHAPTER 4.

THE BUILDING OF THE GOVERNMENT ELEVATOR AT PORT ARTHUR

1. *Sites*.—Several sites were available. Two of them were on the mainland and the others were on the islands. In making a selection the Board was guided by:—

1. The character of the foundation.
2. The amount of dredging that would be necessary.
3. The accessibility from lakes and railways.
4. The area and possibility of future additions to elevator.

In comparing the available sites along these lines, the Board had reports from Mr. Merrick, District Engineer for Fort William, Mr. McQueen, of Barnett-McQueen Company, and Mr. Folwell, Engineer of the Canadian Stewart Company. These experts conducted independent examinations of the sites, and from their reports it was evident that a mainland site was preferable to an island site on the grounds of accessibility and of the possibility of immediate construction, and that of the two mainland sites, the one on Thunder bay was the better. Valuations were obtained from men regarded as competent and the purchase of Thunder bay site was recommended and effected.

The site has 600 feet frontage and about 3,336 feet in depth.

It is large enough for future extensions to the elevator to the extent of 19 capacity of 30,000,000 bushels. The foundation has proven to be satisfactory and the filling in has converted it almost all into dry land. It cost \$90,000, and was purchased from Messrs. McKenzie, Mann & Company.

The other mainland site was Water lot 19 K, Neebing addition.

On the first of June, Mr. Langworthy, solicitor, was instructed to ascertain the names of the owners of all water lots between Fort William and Port Arthur. After searching in the Registry Office and the Land Titles Office, he made a report, stating among other things that water lot 19, Fort William, had never been patented.

On attention being called to this, the Department of Marine and Fisheries transferred water lot 19 to the Department of Trade and Commerce, and the Hon. D. Reid, Acting Minister of Trade and Commerce, asked Mr. Creelman, of the Canadian Pacific Railway Company at Montreal, whether the Canadian Pacific Railway Company had any title on the said water lot.

Mr. Creelman's reply was: 'Fort William water lot records here indicate that the company has no title to water lot in front of 19 or strip of 27 feet wide off the north side of water lot 18. Am taking matter up with Winnipeg to confirm this and will wire immediately.'

On June 17 the Minister of Lands, Forests and Mines for the Province of Ontario stated that his department had issued a patent on water lot 19 to the Canadian Pacific Railway Company in 1910. The Board then sent Commissioner Staples to interview Mr. Bury, Vice-president of the Canadian Pacific Railway Company, at Winnipeg. Mr. Bury claimed that the provincial patent was good and stated that the Railway Company would stand by the claim, but offered to sell the water lot to the government.

In the meantime the Board had instructed Mr. Merrick, District Engineer, to report upon the foundations of the lot, and his report was so unfavourable that the Board saw no reason for testing the question of ownership of the lot till reports of all the available sites were received.

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(2) *Procedure Regarding Plans and Specifications.*—As soon as it was decided to build an elevator, communications began with construction companies. Representatives of these companies came to Fort William to examine the site, obtain information about the requirements of the elevator, and in general to prepare plans and specifications. From practically the first of June, therefore, the construction companies were engaged in preparing plans and specifications.

UR The Board considered carefully the advisability of first selecting plans and specifications and then asking for competitive tenders upon these. The methods possible were as follows:—

1. To ask for tenders for complete specifications and complete drawings; to purchase the most suitable, and then submit those purchased for competitive tenders.

2. To ask for complete specifications and outline drawings, purchase the most suitable, and then submit those purchased for competitive tenders.

3. To ask for complete specifications and outline drawings, and at the same time sealed tenders in separate covers, and, if satisfied with any of the tenders submitted, proceed with the contract.

The adoption of the first plan would have made it impossible to have the elevator ready for the harvest of 1913. About 150 drawings were necessary for such a structure as was contemplated, and the preparation of these alone would have involved four or five months' work. On this account, the Board decided to adopt another method.

The second plan does not necessarily and of itself require so much time for preparation as the first. In this instance, however, the seasonal conditions have to be taken into consideration. If the foundation work were not finished before the severity of the winter set in, the elevator could not be completed for the harvest of 1913 on this plan any more than on the first. To have purchased the most suitable plans with the specifications complete but with only outline drawings, and to have submitted these for competitive tenders, would certainly have caused a delay long enough at that time of the year to have made it very doubtful whether the foundation work could have been started during the autumn. And this second plan would not, in the opinion of the Board, have secured any advantage sufficient to compensate for this delay. Competitions upon one and the same set of complete specifications and incomplete drawings is quite possible, but it appeared to the Board that the third plan named above would equally well secure the advantage of competitive tenders, and would at the same time avoid delay incident to the other plans.

The third of the plans, therefore, that of asking for complete specifications, outline drawings and tenders sealed and separate, appeared to be the only one open if there was to be any hope of getting the elevator ready for the harvest of 1913. This was a determining consideration with the Board, but the Board were at the same time assured that this plan is frequently adopted in elevator construction, and that it permits the keenest possible competition.

The Board accordingly adopted the third plan, and made it known to the various companies that are engaged in elevator construction in Canada. The Board are not aware that any elevator builders operating in Canada were omitted, and are quite confident that they were all thoroughly familiar with the procedure and had ample opportunity to submit plans, specifications and tenders if they desired.

On July 17 the formal notice was issued by the Department of Trade and Commerce calling for plans, specifications and tenders, these to be deposited not later than August 1. During the first week of August these were examined, the following being the procedure adopted: The plans and specifications were examined first by two expert elevator operators, Mr. J. P. Jones, Manager of the Empire Elevator Company, which had been built by the Barnett-McQueen Company, and Mr. R. Edmond, Manager of the Grank Trunk Elevator, which had been built by the Canadian Stewart Company. After a close examination these recommended the plans and

specifications of the Barnett-McQueen Company. The plans and specifications were next examined by Mr. Fairbairn, the Assistant Chief Engineer of the Canadian Pacific Railway, Montreal, who confirmed the conclusion reached by Messrs. Jones and Edmond. The Board desire to put on record their appreciation of the service rendered by these gentlemen, who freely placed their time and experience at the disposal of the Board.

Upon examination of the plans and specifications the Board concurred in the verdict of these experts. The tenders were then opened, and it was found that the tender of the Barnett-McQueen Company was the most satisfactory, both as regards the conditions of the tender, the date on which the elevator should be completed, and the cost of construction. A contract with the Barnett-McQueen Company was accordingly made.

(3) *Power*.—It was finally decided to equip the elevator with electric power. The city of Port Arthur has an arrangement with the Hydro-Electric Commission of Ontario, in accordance with which the Board negotiated with the Hydro-Electric Commission. Plans and specifications for the power-house and electric fitting generally are being prepared by the Hydro-Electric Commission, and a contract will be made with that commission for the purchase of power.

(4) *Supervising Engineers*.—Mr. Harcourt, District Engineer for the Department of Public Works, supervised the preliminary work, of which the most important part was the pile driving. Mr. Harcourt devoted much time to the work, and the Board desire to record their sense of the value of his services.

Messrs. Woodman & Carey, of Winnipeg, will supervise the construction of the elevator.

CHAPTER 5.

SAMPLE MARKETS.

The natural way of selling an article is to show it to buyers. When its volume becomes very large, as in the case of Canadian grain, this method becomes impracticable, with the result that there is shown instead either a sample of it, or a certificate stating its qualities according to the judgment of men accepted by both parties as competent and as disinterested.

Some countries sell by sample alone. The United States combines sample trading and trading by grades in every one of its grain markets. Canada is unique in having enacted legislation which made sample trading impossible. For in the terminal elevators through which most of the grain must pass, individual lots are merged in the general bin containing the grade to which the lots belong, and no trader can give a special price for a lot, the identity of which he cannot preserve.

The grading system undoubtedly cheapens transportation and storage, gives buyers and sellers the advantage of expert opinion on the grain offered, makes easier the financing of the grain by means of warehouse receipts, facilitates trading on the Exchange, and in many ways assists the production, transportation, storing and trading of grain. And if a perfect set of grades could be found, a set that would represent differences in value, and that would give no privilege to any class or interest, much could be said in favour of the Canadian plan of making sample trading impossible.

Few would claim perfection for the set of several hundred grades which were recognized until lately. That set of grades tends to rob the grading system of much of its value, tending, as it did, to confusion, and to the reduction of the storing and handling capacity of the elevators; and apart from these objections, few would claim that the differences fairly represented the milling value of the grain. Western milling companies show a preference, and give a small premium, for grain grown in certain districts. They buy this grain and they do not need to send it to the terminal elevators, where it would be merged with grain of the same grade from other districts. They experience, therefore, no competition from those who send their grain to the terminals.

In every grade there are choice individual lots. For these the general grade-price is too low. There is much grain slightly bleached, or slightly smutted, that really is as good as grain in high grades, but the law classifies it 'bleached' and 'smutted' and prevents the producer getting anything like its value. Western mills may give a small premium over the grade price for such grain, but there again the system of grading and binning gives them the field to themselves. As a commercial question there is no doubt whatever that the coexistence of the two methods of trading—by sample and grade—is preferable to the sole existence of one.

The main objections to sample trading are two in number. One is about mixing the grain and the other is about transporting it. The one comes from some of the producers and the other from some of the railway men.

MIXING.

It is not denied that nature mixes, and that her mixtures have to be corrected before the grain is ready for milling. Part of the process may be done in the elevators, but part, it appears to be held, must not be done except in the mills. It is

indeed charged that even in the terminal elevators mixing is done, and it is suspected by some that there is mixing practiced in some of the transfer elevators, Canadian and American, through which Canadian grain passes to the foreign markets.

But the argument is that mixing will be profitable to the terminal elevators, and that none of that profit will go to the producers. Only the terminal elevators will have, it is said, mixing facilities. Only they then will be able to secure the lots of grain that have special mixing values, and as the mixing will lower the grades of export grain, the export price will fall, and upon this lowered export price the price paid to the producer will be based. Hence, it is claimed, that before sample markets are established the terminal elevators should be taken over by the state; if this is done the objectors will welcome sample markets. The objection, therefore, is not to sample trading in itself, but sample trading carried on under a system of privately owned terminal elevators.

The state has gone already, to some extent, into the terminal elevator business and the condition is so far forth fulfilled. And if the state provides terminal elevator at inland points for the Hudson bay and Panama canal routes, the condition will be still further carried out. The producers have also gone into the terminal elevator business, so that already terminal conditions demanded by these objectors have been to some extent arranged. It is also worth noting that if this objection be sound, the existing terminal companies do not lower each grade to its minimum, else they could not lower the grades still further by mixing. But the strength of the objection lies in the statement that while the terminal companies would make larger profits by mixing, they would have such a monopoly that the larger profits would be made by themselves only and not be shared by the producers. This forgets that the producers themselves are now amongst the largest grain dealers, that they are amongst the largest owners of country elevators, and that they are now operating one terminal and may in future operate several. It forgets that all large western milling companies with their interior and terminal elevators will still be in the field, and that the eastern and British millers may also compete for such lots of grain as may be worth competing for.

It is argued that sample trading has lowered the grades of the United States grain. Doubtless the huge milling industries of the United States buy the grain that best suits, and doubtless also the different grading systems of the different States have tended to injure the uniformity and the reputation of the United States grades. But in Canada there is one grading system throughout, and there is less difficulty in maintaining the uniformity of the grades.

So far as state ownership of the lake terminals is concerned this would of itself neither wholly prevent nor greatly assist trading by sample. If the state owned the terminals, and if sample markets were established, mixing could not be done in the state terminals. No manager of a state elevator could mix grain to the satisfaction of the dealers. The treatment, therefore, if carried on at all would be carried on in private elevators other than terminals, in which the owner of the grain would treat it according to his judgment. The grain so treated would then be shipped through the public terminals. This would render sample trading possible, but it would put an additional tax upon the grain to the amount invested in the private houses and in the additional handling necessary.

TRANSPORTATION.

The second objection is very different from the first. The railway men who advance it do not ask for state operated terminals, as a preliminary condition, and do not take the ground that if that condition be fulfilled they will welcome sample trading. They are opposed to sample markets no matter who owns the terminals because, they say, sample trading will make transportation more difficult and will

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require larger yards at the points where the sample markets exist, and will delay the cars at these points so much that the greatest blockade Canada ever saw will be brought about. They point to the fact that the Exchange closes earlier on Saturday, and keeps closed on Sunday, and Monday, too, if at any time Monday is a legal holiday, and they contend that this fact alone would bring about a weekly blockade. The transportation side of sample trading is being investigated by the Railway Commissioners; it is not in the hands of the Grain Commissioners. But it is open to the Grain Commission to point out that sample trading exists in every grain market in the United States without such a weekly blockade, and that by having sample markets both at Winnipeg and Fort William, the cars need not be detained all that time in Winnipeg. It is also open to the Grain Board to point out that it would not follow that all the cars would be held back at either Winnipeg or Fort William; that if the samples were taken at western points like Saskatoon, Moosejaw or Regina these samples would be sent forward by express, inspected and sold, before the cars reached Winnipeg. It is wholly wrong to imagine that a car of grain in, say Alberta, is picked up by an engine and rushed straight through to the terminal point without even an hour's wait in Winnipeg for sampling purposes. The journey of the grain cars to the terminals is slower than that even at the quickest, and if the average time spent by the cars between the shipping point and the terminals were taken there appears to be time for such sampling at western points and for selling by sample at Winnipeg for most of the grain.

Further, there is no reason why, if sample markets were established in Winnipeg, there could not be rules and regulations to the effect that samples exhibited a certain length of time must be withdrawn and the cars they represent sent forward; samples and cars inspected at a certain hour in the morning would all be disposed of by a certain hour in the afternoon.

It need not be denied that sample trading might tend to delay the transportation of some of the cars but the question is whether that delay would nullify the advantages of sample trading. This side of the matter, however, is in the hands of a body much more conversant with transportation conditions.

PREPARATION FOR SAMPLE MARKETS.

1. *Accommodation.*—This is arranged for by Winnipeg and Fort William for September, 1913. At Calgary conditions are not ready for sample trading.

2. *Terminal Elevators.*—By September, 1913, there will be in operation the Dominion Elevator, an elevator operated by the Grain Growers' Grain Company, the other Canadian Pacific elevators, all as public elevators. There will be several other public elevators, and there is no difficulty in arranging for some private elevators.

3. *Registration of Warehouse Receipts.*—The office for registration and cancellation is now working successfully.

4. *Exchange Rules.*—These concern the safeguarding of deliveries on receipts issued by private terminals; they have been provided for.

5. *Sampling.*—The Board consider that there should be two sets of samples taken—one by the trade for the sample market, and one by the inspection officers for purposes of inspection. There is an advantage in having two sets of samples. At present there is only one, and producers and traders alike are sometimes dissatisfied.

There is no difficulty in securing the services of a sampling bureau, and there is no difficulty, unless the railway companies make one, in arranging to have samples taken at points west of Winnipeg.

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It is the opinion of the Board that conditions are as ripe for the establishment of sample trading in Canada now as they ever will be, and that there is no sufficient reason for not establishing sample markets at Winnipeg and Fort William for the next crop.

Representatives of some of the railways have asked that the establishment of a sample market be deferred until September, 1914, and offer then to co-operate if this concession is granted. This proposal, however, has not been put in writing by any of the railway companies up to date. If it were put in writing and the Board assured of the co-operation of the railways, it might be considered.

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CHAPTER 6.

TRANSPORTATION.

MOVEMENT OF GRAIN FROM INITIAL TO TERMINAL POINTS.

The following table shows the number of cars moved by each railway till December 9—practically the close of navigation.

It is noteworthy that there is a decrease in the number of cars carried during the month of September.

Taking the whole period, the Canadian Northern Railway carried fewer cars this year than last, the decrease being 1,131. This is rather disappointing.

There is also a slight decrease of 124 cars in the number carried to Superior.

On the other hand the Grand Trunk Pacific shows an increase of 3,094 cars, and the Canadian Pacific shows a total increase of 11,700. The work of the Canadian Pacific during October and November is proof that that company made a great effort to move the crop during the period of open navigation. Doubtless it would have made a still better showing had it not been for two things: the late threshing, as evidenced by the September inspections, and the unloading capacity of the terminal elevators.

CARS INSPECTED.

Winnipeg.	1911.					
	Wheat.	Oats.	Barley.	Flax.	Rye.	Total.
C. P. R.						
Sept.....	5,086	277	159	19	.....	5,541
Oct.....	12,401	1,230	525	282	.....	14,438
Nov.....	10,879	1,045	372	658	.....	12,954
Dec. 1-9.....	3,195	287	54	183	1	3,720
	31,561	2,839	1,110	1,142	1	36,653
C. N. R.						
Sept.....	3,595	155	195	.....	.....	3,945
Oct.....	7,269	894	500	79	.....	8,742
Nov.....	5,540	984	400	232	.....	7,157
Dec. 1-9.....	1,811	391	106	82	.....	2,390
	18,215	2,424	1,201	393	.....	22,234
G.T. R.						
Sept.....	306	31	8	.....	.....	345
Oct.....	2,169	318	40	9	.....	2,536
Nov.....	1,764	350	27	32	.....	2,173
Dec. 1-9.....	612	157	4	11	.....	784
	4,851	856	79	52	.....	5,838
CALGARY						
Sept.....	55	80	4	.....	.....	140
Oct.....	210	130	15	1	.....	355
Nov.....	355	315	42	1	.....	713
	737	673	74	2	.....	1,486
SUPERIOR						
Sept.....	589	2	3	.....	.....	594
Oct.....	529	14	9	19	.....	571
Nov.....	582	40	1	37	.....	660
Dec. 1-9.....	92	4	1	5	.....	102
	1,792	60	14	61	.....	1,927

1912.								
C. P. R.	Wheat.	Oats.	Barley.	Flax.	Rye.	Total.	Increase.	Decrease.
Sept.....	3,371	153	150	97	.....	3,771	W. 4,935	.....
Oct.....	15,672	1,403	1,036	983	1	19,095	O. 1,597	.....
Nov.....	14,760	2,467	1,279	2,282	.....	20,788	B. 1,563	.....
Dec. 1-9.....	2,693	413	208	454	.....	3,768	F. 2,674	.....
							R. 0	.....
	36,496	4,436	2,673	3,816	1	47,422	10,769	.....
C. N. R.								
Sept.....	1,453	56	105	30	.....	1,644	W. 0	W. 2,673
Oct.....	7,261	954	714	441	.....	9,370	O. 35	.....
Nov.....	5,916	1,269	729	842	.....	8,756	B. 460	.....
Dec. 1-9.....	912	180	113	128	.....	1,333	F. 1,047	.....
							R. 0	.....
	15,542	2,459	1,661	1,441	.....	21,103	1,542	2,673
G. T. R.								
Sept.....	122	9	12	.....	.....	143	W. 1,560	.....
Oct.....	2,981	525	140	106	.....	3,752	O. 882	.....
Nov.....	2,861	1,001	167	260	.....	4,289	B. 266	.....
Dec. 1-9.....	447	203	26	72	.....	748	F. 386	.....
							R. 0	.....
	6,411	1,738	345	438	.....	8,932	3,094	.....
CALGARY					C.			
Sept.....	169	139	14	.....	.....	322	W. 385	.....
Oct.....	475	339	83	2	.....	899	O. 362	.....
Nov.....	383	403	115	1	.....	904	B. 179	.....
Dec. 1-9.....	95	154	41	1	1	290	F. 3	.....
							R. 1	.....
							C. 1	.....
	1,122	1,035	253	3	1	2,415	931	C. P. R.
SUPERIOR.								
Sept.....	71	1	1	.....	.....	73	W. 336	.....
Oct.....	606	3	43	11	.....	663	O. 23	.....
Nov.....	589	23	115	55	.....	782	B. 176	.....
Dec. 1-9.....	190	10	31	54	.....	285	F. 59	.....
	1,456	37	190	120	.....	1,803	235	359
							16,571	3,032
							3,032	.....
Total increase.....							13,539	.....

The unloading capacity of the elevators in proportion to the carrying power of the railways is more favourable on the Grand Trunk and Canadian Northern lines than on the Canadian Pacific. In this regard it is worth noting that adequate connection between the Canadian Pacific and the new Dominion Government elevator at Thunder bay will be necessary both for the success of the elevator and to increase the unloading capacity of the terminal point.

The car question at initial points presents two phases, distinct, though related. The first is that of shortage in the number of cars supplied, and the second is that of distribution among shippers, producers and elevators. Neither difficulty is confined to the period of open navigation; both extend during the winter. So far as the car shortage phase is concerned, the work of the Canadian Pacific and, to a less

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degree, that of the Grand Trunk, during September, October and November, have left little room for complaint. Shortage of course there was, but the situation was much better than was anticipated. In this respect western Canada has been much more fortunate than the United States, according to the information given in the Grain Dealers' Journal and the North Western Miller.

The chairman of the association of western railways appealed on August 29 to the Chicago Board of Trade to co-operate in a number of ways specified with the railways with the object of meeting the car shortage.—(Grain Dealers' Journal, September 10.)

The Kansas City Board of Trade appealed to its members to co-operate in preventing a car shortage at that market by despatch in ordering disposition of cars, &c.—(Grain Dealers' Journal, September 25.)

The chairman of the Committee on Relations between Railways of the American Railway Association issued a report on October 17 which indicated that the car shortage was the worst in modern times.—(Grain Dealers' Journal, October 25.)

By October 25 cars were becoming so scarce in grain sections that grain dealers were hauling grain to distant lines of railways or junction points, in order to continue business.—(Grain Dealers' Journal, October 25.)

According to a bulletin of the American Railway Association the net shortage on November 2 was 49,981 cars, as compared with 31,579 two weeks previous, and 17,793 four weeks previous. On December 10, Ohio shippers could not get cars, and Kansas shippers were still worse off, for after filling their elevators they were piling the grain on the ground.—(Grain Dealers' Journal, September 10.)

In some sections shippers were compelled to close their elevators.—(Grain Dealers' Journal, September 25.)

At Buffalo boats could not be unloaded, the grain could not be hauled and the shortage seriously injured both export and domestic business.—(North Western Miller, November 13.)

Minneapolis was barely able to secure enough cars to ship the output of its mills.—(North Western Miller, November 13.)

Most of the complaints received by the Board have been on the matter of distribution of cars, but these have, so far, not been as numerous as, according to Mr. Castle, they were last year. The Board cannot present a complete account of this till a later date. The Board sought to ascertain how long cars are on the way from shipping points to terminals. This information has, hitherto, not been gathered by the department. Arrangements have been made to secure it systematically in future. In the meantime the following figures have been collected. Taking the period at which the cars move most quickly, that of September, October and November, and the railway line that has done so brilliantly this year, the Canadian Pacific, and taking nearly 3,000 cars from September 20 till the close of navigation, the result is:—

Manitoba	771	cars; average days each,	8.802
Saskatchewan	1,628	"	" 13.434
Alberta	482	"	" 15.151

No attempt was made to select cars.

This is a good showing, yet the non-railway mind may wonder whether such a time does not give room for sample trading, even when transportation is most rapid.

RECEIPTS AND SHIPMENTS AT THE TERMINAL ELEVATORS.

The following figures show the receipts and shipments at the terminal elevators from September 1 till December 13, 1912:—

RECEIPTS AND SHIPMENTS of Grain at Fort William and Port Arthur Terminal Elevators from September 1 to December 13, 1912 (close of navigation).

Receipts.	Wheat.	Oats.	Barley.	Flax.	Total.
C. P. Ry. Co.....	10,738,044	2,146,498	1,017,071	.....
Consolidated.....	5,192,779	677,971	210,931	933,400	
Empire El. Co.....	5,293,002	1,531,504	453,693	1,395,764	
G. T. P. El. Co.....	6,271,604	2,796,551	361,064	391,109	
Gr. Gr. Grain Co.....	6,009,908	1,006,815	439,767	.....
Horn & Co.....	526,393	104,094	56,638	290,629	
Pt. Arthur El.....	11,900,822	2,734,408	1,291,102	1,213,253	
Thunder Bay El.....	3,221,737	665,482	352,696	246,180	
Ogilvie Flour M.....	4,920,883	265,048	46,460	.....
Western T. El.....	3,967,745	346,745	.....	1,110,514	
	58,042,917	12,335,116	4,229,422	5,580,849	80,188,304
Shipments.					
C. P. Ry. Co.....	10,446,478	2,242,719	882,771	.....
Consol. El. Co.....	4,879,087	623,009	182,262	758,515	
Empire El. Co.....	4,897,274	1,428,363	450,011	1,272,323	
G. T. P. El. Co.....	5,922,034	2,620,067	339,195	270,937	
Gr. Gr. Grain Co.....	4,778,898	803,482	365,122	.....
Horn & Co.....	465,674	135,057	78,250	352,815	
Pt. Ar. El. Co.....	11,595,034	2,566,954	1,234,669	1,115,781	
Thunder Bay El.....	3,233,048	684,952	331,845	196,268	
Ogil. F. Mills.....	4,637,251	245,489	45,554	.....
Western T. El.....	3,867,522	312,776	.....	955,460	
	54,722,300	11,662,868	3,909,679	4,922,099	75,216,946

And the following compare the total receipts and shipments for September, October and November in 1911 and 1912. For the three months ended November 30, 1911, and for the same period in 1912:—

	Receipts.	Shipments.	In Store.
30th November, 1911.....	52,887,887	42,754,225	10,133,662
30th November, 1912.....	71,651,910	60,439,223	11,212,687
Increase.....	18,764,023	17,684,998	1,079,025

These figures show a great increase in 1912 as compared with 1911. They show the increased amount of work done by the railways, elevators and vessels, and not less of the inspection and weighing departments. During this period everybody engaged in the moving of grain worked at high pressure.

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It is satisfactory to note that the eastern Canadian route has held its own this year:—

Shipped to Buffalo, 1911..	22,620,174
“ “ 1912..	23,334,487
“ Canadian ports, 1911..	17,620,174
“ “ 1912..	21,870,595

There has been a marked increase in freight both on the Atlantic ocean and on the Great Lakes as compared with last year. This is said to be due to an increase in business throughout the world, and on the lakes, to the increase in the iron and steel business of the United States and also to the harvest in that country.

There is no doubt that the transportation of western grain has been impeded by the insufficient storage capacity of the eastern transfer elevators and the insufficient tonnage of the St. Lawrence river route.

FLAX.

In 1911 there were 1,587 cars of flax carried during the period from September 1 till December 9.

In 1912 during the same period there were 5,695 cars—a very large increase—and this number would have been larger had it not been for the embargo placed by the Canadian Pacific Railway on the shipment of flax.

Flax is a difficult grain to handle. It is almost as fluid as water, and machinery suited to handle wheat is not suited to flax.

Some of the elevators are not equipped with flax cleaners: the Canadian Pacific and the Ogilvie elevators. The following shows the flax cleaning capacity of the terminals:—

Flax Cleaning Capacity at Head of the Lakes.

	Cleaners.	Bushels.
Canadian Northern Elevator.....	3	9,000
Grand Trunk Pacific.....	2	8,000
Horn's Elevator.....	3	10,000
Empire Elevator.....	2	7,500
Thunder Bay Elevator.....	1	4,000
Western Elevator.....	2	8,000
Consolidated Elevator.....	2	7,000
		53,000

These estimates are as given by the men in charge of the several elevators and are for ten-hour days.

This capacity has been inadequate to the work to be done this year. The result is that the yards were liable to congestion by flax, and the unloading capacity of the elevators was reduced by the flax. Hence the Canadian Pacific Railway put an embargo upon flax for a few days in November.

Embargoes are not desirable things in the opinion of the Board. But there is no doubt that flax is an exacting grain, that the flax cleaning capacity of the elevators proved inadequate, and that it would do nobody any good to have the flax lying in the yards waiting its turn and holding the cars and blocking the movement of other grain in the meantime.

The situation in regard to flax is still unsatisfactory. It is coming in a volume beyond the capacity of the elevators. It cannot be cleaned as it comes, and if allowed

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to lie in the cars it is in the way. The Canadian Pacific is therefore unloading it into its own elevators, and holding it there pending cleaning, and thus relieving the cars and yards.

The movement of flax this year is but another illustration of the fact that Canada has no reserve capacity for handling the grain. Last year flax presented little difficulty, but the high price resulted in an increased production. The quantity produced passes the capacity of the elevators for the present, but the price this year may result in a decreased production next year. And so it goes. Private capital hesitates to provide plants which may not be used, and the total production cannot be well handled by a plant built on the principle that it must yield a profit every year. These emergencies are natural in a country that produces a large volume of grain, and they have not been provided for in Canada up till the present.

WINTER TRANSPORTATION.

The difficulties in the winter transportation have hitherto concerned not only the moving of the grain from the initial points to the terminals, but also the moving of it from the terminals over the single railway line to the east. Hence, to the complaints about car shortage at initial points there were added complaints about car shortage and car distribution at the terminal elevators, about embargoes on other railway lines by the Canadian Pacific, about preferential treatment given to export grain over grain for domestic consumption, and about storage payable on grain after the shipper had ordered it out.

As early as August the Board recommended that the lower rates to Duluth be arranged if possible at an early date, and the Hon. the Minister of Trade and Commerce agreed, and took the necessary steps. At a later date the Hon. the Minister of Customs agreed to an arrangement by which American boats storing grain during the winter at Fort William and Port Arthur should be permitted to unload the grain so stored at Canadian ports, except Port Colborne, at the opening of navigation, provided the boats were chartered and loaded after certain specified dates. Accordingly there is now available for winter storage about one and a half million Canadian tonnage and about ten million bushels of American tonnage.

This is a considerable addition to the available storage capacity at the terminal point, and should it be made use of it will help to keep the grain moving through Canadian channels. It should be recognized, however, that winter storage in this form is at best an emergency remedy. The need of it is but another illustration of the inadequacy of the proper facilities for handling the grain.

The increase in the number of vessels wintering in the terminal harbour led to the very important question of keeping the ice broken sufficiently to make vessels available. By undertaking to keep the ice broken for a longer period than usual the government conferred another considerable aid to the transportation of the grain. In many ways must the country pay for the lack of reserve storage capacity.

The Press reports that the first grain train via the Grand Trunk Pacific was due at Cochrane on December 31. The second much needed eastern outlet is therefore in sight.

CHAPTER 7.

REVENUES AND EXPENDITURES.

The Eastern Division.

In the Eastern inspection division there is a deficit every year in every district of the division. The figures for the last four years are given below.

There is no inspection in the east of western grain. Occasionally an eastern inspector is called upon to take a sample of a car or cargo of western grain, and the clerk in the Montreal office issues split certificates for western grain. The inspectors are paid to inspect and weigh eastern grain and there is now little eastern grain to be inspected. The inspector at Peterborough inspected on the average one car per day last year and weighed on the average one car per week. The inspector at Kingston inspected one car per week. In performing these services at these two points alone the Dominion lost \$1,478 last year. There is no sign that there will be any change this year. So far as eastern grain is concerned there is no justification for maintaining so many inspection districts, and as stated, the inspectors have nothing to do with western grain.

The milling interests at Peterborough and Kingston desire to retain the inspectors at those points. The milling interests at Regina, Moosejaw, Medicine Hat and Lethbridge desire to have inspectors at their respective points. So far, inspectors have not been granted at milling points throughout the west, though there is no doubt that the appointment of inspectors at milling points would be a considerable aid to the milling industry.

There should be the same policy in this respect for east and west. There is no justification for preferential treatment such as now exists. On the other hand, if inspectors are placed at milling points generally, the annual deficit will be considerably increased.

The State of Minnesota maintains inspectors at St. Cloud, New Ulm, New Prague, Kasota, Sleepy Eye and LaCrosse, in addition to St. Paul, Minneapolis and Duluth, but it does so under the following law: 'The commission upon proper application for state inspection or weighing of grain by any person interested at any other point than St. Paul, Minneapolis or Duluth may furnish such service, if it is deemed expedient, provided such person first agrees to pay all costs of the service. Rules governing state inspection and weighing at other terminals shall apply at such points.' Hence the local inspection given by Minnesota imposes no tax upon the department.

Some Canadian millers would agree to this rule and others would probably object. There is no other way known to the Board of maintaining inspectors at milling points that will not lead to either an increase in the deficit or an increase in the inspection and weighing fees.

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RECEIPTS AND EXPENDITURES for each office in Eastern Division during past four years.

	1908-9	1909-10	1910-11	1911-12
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Kignston—				
Revenue.....	69 30	95 84	177 19	69 77
Expenditure.....	743 50	724 42	709 85	830 75
Peterboro—				
Revenue.....	482 00	287 20	312 70	306 86
Expenditure.....	877 22	848 92	857 15	954 50
Toronto—				
Revenue.....	3,898 91	1,351 39	1,674 04	2,470 75
Expenditure.....	5,044 01	4,565 64	4,727 04	4,987 60
Montreal—				
Revenue.....	1,961 92	1,386 58	2,430 52	3,378 45
Expenditure.....	11,289 14	12,147 22	8,442 21	8,321 65

TOTAL.

	1908-09	1909-10	1910-11	1911-12
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Revenue.....	6,412 13	3,121 01	4,594 45	6,225 83
Expenditure.....	17,953 87	18,286 20	14,736 25	15,094 50
Deficit.....	11,541 74	15,165 19	10,141 80	8,868 67
Total Deficit.....	45,717 40			

DEFICIT by Offices, four years.

Kingston.....	\$ 2,596 42
Peterborough.....	2,149 03
Toronto.....	9,929 20
Montreal.....	31,042 75
	<hr/>
	\$45,717 40

The Western Division.

1. THE WAREHOUSE COMMISSIONER'S OFFICE.

This office did not pay its way. The figures for the last four years are:—

Year, 1908-09—deficit.....	\$11,237 13
“ 1909-10 “	11,302 55
“ 1910-11 “	3,998 86
“ 1911-12 “	8,582 45

In 1910-11 there was a sum of \$5,550 derived from fines credited to the revenue of this office for that year, and this accounts for the smallness of the deficit that year. Apart from fines, the sole revenue of this office consisted of the elevator licenses of \$2 per annum, interior and terminals alike.

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2. THE SHIPPERS' AGENT'S OFFICE.

The expenditure in this office was almost \$3,500 per annum, and there was no revenue.

3. SURVEY BOARDS.

Winnipeg.—The secretary's salary is \$750 per annum. This is paid by the department, and there is no revenue.

Calgary.—The secretary's salary is \$300 up. This is also paid by the department, and there is no revenue.

4. REGISTRATION OF WAREHOUSE RECEIPTS.

The department contributed \$5,000 per annum to the Lake Shippers' Association. The revenue was nothing.

5. DULUTH.

The Duluth office is in a class by itself, as it is the only Canadian inspection office maintained outside the boundaries of the Dominion. It has not quite paid its way. The following are the figures:—

1907-08—deficit.. . . .		\$ 768 12
1908-09—surplus.. . . .		987 64
1909-10—surplus.. . . .		254 24
1910-11—deficit.. . . .		1,097 79
1911-12—deficit.. . . .		177 52
Totals—Surplus		\$987 64
		254 24
		<hr/>
		\$1,241 88
Deficit		\$ 768 12
		1,097 79
		177 52
		<hr/>
		\$2,043 43
		1,241 88
		<hr/>
		\$801 35

It would appear from the correspondence between the railways, the chief inspector and the department in 1907 relating to the creating of an inspection office at Duluth, that the railways had consented to make good any deficit that might ensue, and that they agreed to this as one condition of getting the office created.

6. CALGARY.

This office has had deficits every year. The figures are as follows:—

Year, 1907-08—deficit.. . . .		\$1,845 40
“ 1908-09 “		1,383 80
“ 1909-10 “		1,294 30
“ 1910-11 “		1,420 05
“ 1911-12 “		1,863 48

An office is needed at Calgary for grain going west. Should the Panama canal route prove practicable for Canadian grain, the Calgary inspection will increase. In the meantime this office adds to the burden carried by the department. The Canadian Pacific Railway asks for an addition to the inspection staff to sample cars arriving at night. Should this become necessary, the deficit from this office will be further increased.

7. WINNIPEG.

The figures given below show receipts and expenditures for the past four years. There was a deficit each of these years till 1911-12.

Salaries for inspection and weighing increase every year, and this increase is due to the increase in the production of grain. The expenditures for one year cannot be the estimate for the following year, until the production of grain reaches a standstill.

The deficit in the Winnipeg office cannot be charged to extravagance on the part of the staff. The accommodation provided was utterly inadequate to meet the growth of the work. Such modern aids to inspection as moisture testers and laboratory experiments were not installed. The salaries paid the staff were low, the hours of labour long, and many of the men were required to work seven days a week for a great part of the year.

REVENUE AND EXPENDITURES Winnipeg Office, years ending March 31, 1909-10-11-12.
Salaries and Expenditures year March 31, 1909.

Expended		Revenue	
	\$ cts.		\$ cts.
Salaries, Inspection.....	38,639 90	Cars inspected.....	31,742 40 (79,356 cars)
Salaries, Weighing.....	4,540 65	Cars weighed.....	3,714 25
Expenses.....	5,552 78	Samples sold.....	2,299 48
Rents.....	2,657 64	Standard samples.....	59 75
	51,290 97	Old Testers sold.....	25 00
			37,840 88

Year March 31, 1910.

Salaries, Inspection.....	46,755 90	Cars inspected.....	46,520 50 (93,041 cars)
Salaries, weighing.....	4,525 00	Cars weighed.....	4,808 20 (13,251 cars)
Expenses.....	3,834 71	Samples sold.....	2,832 93
Rents.....	3,692 53	Standard samples sold.....	44 40
	58,808 14		54,206 03

Year March 31, 1911.

Salaries, Inspection.....	49,360 59	Cars inspected.....	46,916 50 ⁰ (93,833 cars)
Salaries, weighing.....	6,210 00	Cars weighed.....	5,555 80 (15,512 cars)
Expenses.....	4,269 13	Samples sold.....	3,098 43
Rents.....	3,673 87	Standard samples sold.....	50 45
	63,513 59		55,621 18

Year March 31, 1912.

Salaries, Inspection.....	64,077 01	Cars inspected.....	71,499 50 (142,999 cars)
Salaries, weighing.....	7,551 10	Cars weighed.....	7,752 00 (21,666 cars)
Expenses.....	5,109 65	Samples sold.....	3,677 74
Rents.....	3,612 53	Standard sold.....	42 30
	80,350 29		82,971 54

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TOTALS.

	1908-09	1909-10	1910-11	1911-12
	\$ cts.	\$ cts.	\$ cts.	\$ cts.A
Expenditures.....	51,390 97	58,808 14	63,513 59	80,350 29
Revenue.....	37,840 88	54,206 03	55,621 18	82,971 54
Deficit.....	13,550 09	4,602 11	7,892 41	
Surplus.....				2,621 25

8. FORT WILLIAM AND PORT ARTHUR OFFICES.

These offices do pay their way. They have been the earners of surpluses for the whole department. The figures for the two offices for 1911-12 follow:—

Fort William, 1911-12.

Expended.	Wages and Overtime.	Rent.	Expenses.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Dec.....	5,625 71	200 00	269 24	6,094 95
Jan.....	4,504 91	200 00	522 93	5,227 84
Feb.....	4,100 76	200 00	163 95	4,464 71
Mar.....	4,113 74	200 00	483 59	4,797 33
April.....	4,155 75	200 00	744 31	5,100 07
May.....	5,108 96	200 00	381 27	5,690 23
June.....	4,873 26	200 00	297 11	5,370 37
July.....	4,807 31	200 00	112 46	5,120 77
Aug.....	4,990 56	200 00	118 03	5,308 59
Sept.....	5,731 07	200 00	182 74	6,113 81
Oct.....	8,370 63	200 00	270 06	8,840 69
Nov.....	10,287 26	200 00	239 08	10,726 34
	66,670 93	2,400 00	3,784 77	72,855 70

Earned.	Vessel Collections	Samples sold.	Insp. Fees.	Weigh fees.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Dec.....	238 32	496 54	3,823 00	5,563 60	9,624 22
Jan.....	487 74	419 86	2,094 00	2,696 10	5,774 49
Feb.....	293 70	154 28	2,014 50	3,155 10	5,883 16
Mar.....	154	122 55	2,441 00	3,295 80	5,891 08
April.....		52 28	1,364 00	1,858 50	3,345 05
May.....		121 90	8,319 00	7,256 40	15,627 68
June.....	137 28	272 89	4,361 00	4,283 50	8,903 68
July.....	266 64	291 74	2,958 00	3,286 70	6,784 23
Aug.....	113 18	312 34	2,739 50	2,501 30	5,645 72
Sept.....		92 74	1,922 50	2,008 70	4,243 54
Oct.....	74 58	164 01	7,773 50	10,079 50	18,020 32
Nov.....	369 60		14,607 00	14,607 70	29,239 31
	1,981 04	2,501 24	53,908 00	60,592 90	118,983 18
Total earned.....					118,983 18
Total expended.....					72,855 70
Surplus.....					46,127 48

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Port Arthur, 1911-12.

<i>Expended.</i>	Wages and Overtime.	Rent	Expenses	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Dec.....	2,762-81	75-00	46-45	2,884-26
Jan.....	2,477-96	75-00	84-20	2,637-16
Feb.....	2,231-36	75-00	302-01	2,608-37
Mar.....	1,714-24	75-00	137-15	1,926-39
April.....	1,777-89	75-00	50-83	1,903-72
May.....	2,295-06	75-00	79-78	2,449-84
June.....	2,372-86	75-00	116-34	2,564-20
July.....	2,333-21	75-00	59-23	2,467-44
Aug.....	2,761-96	75-00	34-30	2,871-26
Sept.....	3,354-70	75-00	103-15	3,532-35
Oct.....	3,647-60	75-00	77-03	3,799-63
Nov.....	4,172-20	75-00	77-80	4,225-00
	31,901-85	900-00	1,168-27	33,970-12

<i>Earned.</i>	Vessel Collections	Samples Sold	Insp. Fees	Weigh Fees	Total
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Dec.....	75-90		1,631-50	2,796-50	4,503-90
Jan.....			767-00	1,340-50	2,107-50
Feb.....			300-50	495-60	796-10
Mar.....			247-00	347-70	594-70
April.....			349-50	257-70	607-20
May.....	93-72		4,407-50	3,918-60	8,419-82
June.....	44-88	156-71	2,721-00	2,511-60	5,434-19
July.....	38-94		1,544-70	1,802-40	3,386-04
Aug.....	27-06	205-20	1,386-50	1,286-40	2,905-16
Sept.....	36-30		877-50	819-90	1,733-70
Oct.....			2,740-00	3,906-90	6,646-90
Nov.....	74-58	240-00	5,204-00	5,608-50	11,127-08
	391-38	601-91	22,176-71	25,092-30	48,262-29
Total earned.....				\$48,262-29	
Total expended.....				33,970-12	
Surplus.....				\$14,292-17	

Hours of Work.	Winnipeg.	Ft. William.	Pt. Arthur.
Outside staff.....	7 A.M. till 6	7 till 6	7 till 6
Office staff.....	8 A.M. till 6	8.30 till 6	8 till 6

SEVEN DAY WEEK.

Fort William and Port Arthur.—All the staff work seven days a week from September 15 to December 15, or later. Only the outside staff get paid for overtime and Sunday work.

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Winnipeg.—This year the yardmen were given one day off in seven. This concession required the employment of twelve additional men, and this added to the expenditure. Twenty men work seven days in the week for eight months in the year.

NIGHT SHIFTS.

Fort William.—There is a night shift in the office consisting of two (2) stenographers and three (3) clerks. Hours, 6 p.m. to 6 a.m. Salaries the same as day shift.

Port Arthur.—There is a night shift of twelve (12) men for three (3) months in autumn. Hours 6 p.m. to 6 a.m. Salaries are same as day shift.

Winnipeg.—There is a night shift of track samplers. Hours 7 p.m. to 6 a.m. Salaries are same as day shift.

OVERTIME.

Fort William and Port Arthur.—Inspectors, weighmen, track samplers, binners, transfer and yard men work overtime according to demand from September 15 till December 15. The rate of wages paid for overtime is 30 cents per hour, except in the case of inspectors working on cargoes when the rate is 40 cents.

There is no overtime in Winnipeg.

HOLIDAYS.

Two weeks are allowed with pay, the time being arranged by the inspector in charge.

EXPENDITURES FOR 1911-12—WESTERN DIVISION.

The number of cars inspected during the months of the present fiscal year was greater than it was last year. The figures are:—

	1911.	1912.
April.....	7,024	14,348
May.....	4,201	11,755
June.....	6,451	10,848
July.....	6,828	9,711
August.....	3,318	3,356
September.....	10,565	3,953
October.....	26,642	33,779
November.....	23,657	35,519
	88,886	125,269
		88,686
Increase over 1911.....		36,583

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COMPARATIVE FIGURES FOR SAME PERIOD, 1901-02 TO 1912-13, INCLUSIVE.

For the 4 Months ended December.		Total No. Cars.
1901-02.....		30,458
1902-03.....		29,320
1903-04.....		23,551
1904-05.....		25,572
1905-06.....		39,261
1906-07.....		34,855
1907-08.....		35,827
1908-09.....		59,816
1909-10.....		69,748
1910-11.....		59,124
1911-12.....		83,001
1912-13.....		100,849

CARS INSPECTED AT WINNIPEG FOR CROP OF 1912-13.

1912.	Wheat.	Oats.	Barley.	Flax.	C.P.	C.N.	G.T.	G.N.	Total.
Sept. 30.....	5,186	358	282	127	4,093	1,644	143	73	5,953
Oct. 31.....	26,995	3,224	2,016	1,543-1	19,994	9,370	3,752	663	33,779
Nov. 30.....	24,509	5,163	2,405	3,440-2	21,692	8,756	4,289	782	35,519
Dec. 31.....	16,869	3,929	1,541	3,253-6	15,437	5,741	3,558	862	25,598
	73,559	12,674	6,244	8,363-9	61,216	25,511	11,742	2,380	100,849
Year ago.....	69,185	8,796	2,791	2,229	46,721	26,516	7,587	2,177	83,001
Increase.....									17,848

There was an increase in every month except the month of September. It is noteworthy that the inspections in September have been decreasing since 1909. The figures are:—

1909.....	17,365
1910.....	12,938
1911.....	10,565
1912.....	5,953

The causes of this decrease are probably climatic. As, however, the staff must be ready for the heavy work of October and November, such a reduction in September cannot be made a reason for reducing the staff.

The increase in the quantity to be inspected rendered it impossible to effect as large a reduction in labour as has been usually aimed at from April to August, inclusive, and involved an increase in the expenditure as compared with the previous year. Further, much of the grain inspected from May till August, inclusive, was tough, damp or wet. It required more labour both at Winnipeg and at the terminal point than if it had been straight grade grain. The grain dried by the Armour Company's floating drier, amounting to almost two and a half million bushels,

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required a considerable amount of extra labour for which no extra revenue has been obtained. A larger staff had, therefore, to be retained at Winnipeg, Fort William and Port Arthur than is usual during these months.

Between harvest and the close of navigation the grain must be kept moving; hence October and November show the greatest expenditure. It is not many years since the record number of inspections for one day reached 100. This year there were 1,569 cars inspected in Winnipeg on November 19, and the average daily number for the month was 1,180 cars. If the grain trains number 40 cars on the average, and if the inspectors finish each train in one hour, and if the number of cars per twenty-four hours may reach any day from 1,000 to 1,500, the practical problem is not an easy one. A greater use was made of the Marconi yards this year, and as these yards are three miles away from the other Canadian Pacific yards, a separate staff had to be kept in them.

Besides these causes of increased expenditure, there were others. The inspection office had become utterly congested and more room was rented. Moisture testers were purchased. The acting chief inspector considered it advisable to give the yard men one day off in seven, and this necessitated the employment of twelve (12) additional men. A moderate increase in salaries was given to the men in the Western Division, an increase which in the opinion of the Board was absolutely indispensable if the grain was to be inspected at all.

At the terminals the increase in the quantities of grain handled during September, October and November this year is shown in these figures:—

	Receipts.	Shipments.	In Store.
1911.....	52,887,887	42,754,225	10,133,662
1912.....	71,651,910	60,439,223	11,212,687
Increase.....	18,764,023	17,684,998	1,079,025

INSPECTION AND WEIGHING FEES IN CANADA AND MINNESOTA.

Inspection.	Canada.	Minnesota.
Cars in.....	50 cents.....	35 cents.
Cars out.....	50 ".....	35 ".....
Cargoes.....	50 " per 1,000 bush.	40 " per 1,000 bush.
Flax—		
Cars in.....	50 cents.....	75 cents.
Cars out.....	50 ".....	75 ".....
Cargoes.....	50 " per 1,000 bush.	75 " per 1,000 bush.
Re-Inspection.....	Free.....	\$1 per car of 1,000 bush.
Appeals.....	\$3.....	\$1 per car of 1,000 bush
Weighing—		
Cars in.....	30 cents.....	40 cents.
Cars out.....	30 ".....	40 ".....
Cargoes.....	30 " per 1,000 bush.	40 " per 1,000 bush.

In regard to appeals it should be noted that the fee of \$3 charged in Canada goes to the members of the Survey Board and not to the revenue.

METHOD OF MEETING EXPENDITURES IN CANADA AND MINNESOTA.

In Minnesota the expenses of the Railroad and Warehouse Commission are not a charge upon the fees for inspection and weighing. In Canada the expenses of the Grain Commissioners are according to the Grain Act to be paid from that source.

In Minnesota inspection is granted at points other than Minneapolis and Duluth only on condition that those who ask for such inspection pay any deficit that may result. In Canada this condition is not observed, so that the deficits caused by the inspection of eastern grain at Montreal, Toronto, Kingston and Peterborough have to be met out of the fees levied on western grain, and this is equally true of the deficits at Duluth and Calgary as well as those that arise in connection with the Warehouse Commissioner's office, the Shipper's Agent's office, the Survey Board and the Registration of Warehouse Receipts by the Lake Shippers' Association.

In regard to the terminal elevators there are two important differences between Minnesota and Canada.

SUPERVISION OF THE BINNING.

In Minnesota the inspection staff does not supervise the binning; in Canada it does, or professes to. In this respect Canada pays over \$8,000 per annum, and it pays this for work that gives no revenue whatever, and it is very doubtful whether the supervision which costs so much money is of any real value. It certainly relieves the elevators of responsibility, but whether it does more than that, whether it secures any effective control, is very doubtful.

OVERTIME.

In Minnesota the rule is as follows: 'If any railway company, shipper, vessel owner, or agent of either shall desire the services of any employee of the Grain Inspection or Weighing Department for the purpose of inspecting or weighing grain or doing other work in his line of duty as such employee, on Sunday or any legal holiday or at night, said party or parties shall apply to the chief deputy inspector of grain or state weighmaster for the service desired.

'The chief deputy inspector or state weighmaster, if the service is necessary, will require the same to be performed and shall charge the expense thereof to the person, firm or corporation requiring the service.'

In Canada, at the terminals there is a great deal of overtime. Part of it is caused by the loading of the vessels, but this part puts no tax upon the revenue for the parties served pay for it. But a large part of it is caused by the unloading of the cars at night or on Sundays or legal holidays. The railway companies ask for it constantly during certain months and they do not pay for it. This overtime is paid for out of the ordinary fees. It yields no revenue and it is liable to cause additional loss, both because of the rate and amount paid for it and because of waste of time. The railways have the placing of cars in their own hands, and if they paid for the overtime as in Minnesota, they would probably reduce both the total amount of it and the proportion of waste in it.

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Overtime and Binning, Year 1911-12.

March 31, 1912—Overtime—

Fort William and Port Arthur.. . . .	\$7,849 10	
Duluth.. . . .	136 20	
Emerson.. . . .	34 60	
Winnipeg.. . . .	12 00	
	<hr/>	\$8,031 90
Binning—Fort William and Port Arthur ..		8,687 45
		<hr/>

April 1, 1912, to Nov. 30, 1912—Overtime—

Fort William.. . . .	\$6,997 90	
Port Arthur.. . . .	1,957 20	
Winnipeg.. . . .	364 10	
Emerson.. . . .	15 40	
Duluth.. . . .	210 50	
	<hr/>	\$9,545 10
Binning—Fort William.. . . .	\$6,027 07	
Port Arthur.. . . .	1,815 00	
	<hr/>	7,842 07

CHAPTER 8.

REVIEW OF THE WORK.

The Board has been in existence eight months. It has had to deal with a vast mass of details, with matters of organization, with emergencies in the drying, storing and transporting of the grain, with the building of a large terminal elevator, with applications for inspection districts in the west, with applications for seaboard inspection of western grain, and with several most difficult questions of policy.

The Board has been subject to several handicaps:—

1. Revenue and Expenditure.

The Board sought to keep the inevitable deficit as low as possible. Under the existing system, part of the revenue goes to the upkeep of divisions and offices, which produce little revenue and render little service. Another part is spent upon overtime in the terminals, overtime which in the opinion of the Board should be paid for by those who ask for it. Another part is spent upon the supervision of the binning, a supervision which is little better than nominal, and another part was spent upon registration without any return either in regard to information or administration. The Board was therefore forced either to carry the burden of an enormous deficit, or to keep the expenditure down by sacrificing efficiency. To maintain inspection and weighing, which are vital, the Board considered it necessary to grant an increase in the rate of salaries. To secure real information about conditions in the country the Board made temporary appointments of five supervising inspectors. The Board also ordered moisture testers for the inspection offices. Apart from these additional sources of expenditure, the Board limited themselves to a staff of one clerk and three stenographers, a staff which is totally inadequate now to the work.

2. Details.

It was natural that a vast volume of details should be sent to the Board. All of them were important and all served to educate the commissioners. But most of them could be equally well, if not better, attended to by the heads of the departments.

3. Overdue Work.

In regard to inspection, weighing and registration, matters have had to be dealt with which might have been done long before the Board came into existence. The multiplicity of grades should have been kept within narrower limits. Registration should have been in the hands of the department from the beginning, and the Royal Commission of 1906 recommended a policy in regard to weighing which might have been carried out, but was not.

4. Location.

The production of grain is all west of Winnipeg. At Winnipeg are the headquarters of inspection, transportation, financing, trading and storing of grain. Even the terminal elevators are managed from Winnipeg. Nothing is more necessary to the Board than close and constant touch with the producers, carriers and traders of grain. To keep in such touch from Fort William is difficult and expensive. There

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is no doubt that the importance of Fort William and Port Arthur will grow with the years, but there is no doubt that for the present the administration of the grain laws from Fort William means loss of time and money. The Board have felt acutely the fact that they are so far away from the producers of grain. The complaints about car shortages and car distribution cannot possibly be attended to with despatch, and the Board have been forced to arrange that the most urgent of these should be attended to by subordinates in Winnipeg, an arrangement with which the Board are not satisfied. The Board must spend much more time among the producers than has been possible so far.

5. Emergencies.

The greatest difficulties that have come before the Board have been the emergency remedies occasioned by the general inadequacy of the transportation, storage and handling facilities. The temporary importation of a foreign drier, the importation of foreign vessels for winter storage, with the expense entailed of keeping the harbour open, the application for reduced rates to foreign ports, the embargo upon flax, the taking of flax into store before it can be cleaned and before outturns can be given upon it. Even as remedies they involve much expense, and are proofs that something serious is lacking in the general system of handling grain in Canada.

CHAPTER 9.

RECOMMENDATIONS.

The Board are unanimous in the following recommendations:—

1. As Regards Inspection.

(a) That there should be established in Winnipeg a laboratory for testing the milling and baking qualities of western grain.

The plan that commends itself to the Board is to establish, in co-operation with the proper authorities, such a laboratory in the Agricultural College in Winnipeg. The Principal of that college has been authorized to offer all possible assistance in the matter, and he is most willing to do so. Space would be given in the college building and the assistance of the staff would be available. The initial expenditure would be about \$3,000. The salary of a competent man, the salary of an assistant and the sundry expenses would be from about \$3,000 to \$4,000 per annum. These amounts should be paid by the state and the appointments would be made by the state. On the other hand the college would give the room, the aid of chemical staff and the use of its general apparatus and a general oversight.

Samples of grain would be sent from the inspection offices regularly. Outsiders could be allowed to send samples for a nominal fee. The inspectors would be given opportunities to familiarize themselves with the results, and the students attending the college would be given similar opportunities.

Such systematic testing should be of service in valuing both the varieties, the grades and special lots of grain, and the grain industry of the west is important enough to warrant the use of every source of knowledge of grain.

(b) That there should be only one inspector's office at the head of the lakes, instead of two as at present;

(c) That there should be a reduction in the number of inspection districts in the eastern division;

(d) That the question whether any inspection office should be maintained outside the Dominion should be carefully reconsidered;

(e) That in both eastern and western divisions inspectors if available should be placed when requested at milling points on condition that those who ask for them should meet any resulting deficit; and

(f) That a chief inspector should be appointed for the western division.

2. Weighing.

There should be appointed a chief weighmaster for the western division, and that under him should be organized the weighing department co-ordinate with the inspection department.

3. Elevators.

(a) That there should be appointed an elevator superintendent who would be the executive officer of the Board, having charge of the licensing, bonding, insurance, the registration and cancellation of warehouse receipts and such other matters that the Board may determine.

(b) That as a system of registration and cancellation of warehouse receipts had been established, and as this system makes possible a more effective supervision of the terminal elevators, that the supervision of binning in its present form be abolished.

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4. Overtime.

That the following rule be sanctioned in regard to overtime: 'If any railway company, elevator company, shipper, vessel owner or agent of either shall desire the service of any employee of the grain inspection or weighing departments for the purpose of inspection or weighing grain or doing other work in his line of duty as such employee, on Sunday or any legal holiday or at night, said party or parties shall apply to the inspector (weighmaster) for the service desired, and the inspector (weighmaster) if the service is necessary, will require the same to be performed and shall charge the expense thereof to the person, firm or corporation requiring the service.'

5. Sample Markets.

That sample markets be established in Winnipeg and Fort William in September, 1913, and that railway companies be required to grant the facilities for taking samples at such points and in such ways as shall be approved by the two Boards, that of the Railway Commissioners and that of the Grain Commissioners, and also that rules and regulations governing the disposition of the cars at the sample market points shall be framed by the two Boards and approved by the Governor in Council.

6. Panama Canal and Hudson Bay Routes.

That the existing inadequacy of transportation and storage facilities render it imperative that every preparation be made to make the most of the new routes, that this can be done best by a combination of interior terminal elevators and transfer elevators at the coast, that the Board should be authorized to investigate the most suitable locations for the interior terminals and to report upon all necessary preparations.

The Board take it for granted that both the interior terminal elevators and transfer houses at the coasts would be built, owned and operated by the government.

APPENDIX.

COMPARATIVE PRICES OF NO GRADE WHEAT, DULUTH AND
FORT WILLIAM.

Quotations cover forty-eight days.

On every one of the days mentioned Fort William price is higher than Duluth, the increase averaging from $\frac{1}{8}$ to $6\frac{1}{4}$ cents per bushel.

Date.	Grade.	Duluth.	Ft. William and Pt. Arthur.
		Price.	Price.
May 1st.....	2 fd. oats.....	40 $\frac{1}{2}$	40 $\frac{3}{4}$
	Dried 1st.....	94 $\frac{1}{2}$	96 $\frac{1}{4}$
	No. 4.....	89 $\frac{1}{4}$	89 $\frac{1}{4}$
May 2nd.....	No. 5.....	79	79 $\frac{1}{2}$
	Tf. 6.....	56 $\frac{1}{2}$	56 $\frac{1}{2}$
	3rd.....	96 $\frac{3}{4}$	96
	No. 5.....	78	78
	Dried 5.....	76 $\frac{1}{2}$	77
May 3rd.....	4th.....	88 $\frac{1}{2}$	88 $\frac{1}{2}$
	2 C.W. oats.....	47 $\frac{1}{2}$	49
	4th.....	88 $\frac{3}{4}$	89
	6.....	66 $\frac{1}{4}$	66
	Dried feed.....	57	58
	Dried 3rd.....	94	95
	1st.....	102 $\frac{3}{4}$	103 $\frac{1}{2}$
	5.....	78 $\frac{1}{4}$	78 $\frac{1}{2}$
	Dried 4th.....	87 $\frac{1}{4}$	88
	3rd.....	96	96 $\frac{1}{4}$
	Dried feed.....	57 $\frac{1}{4}$	58
	Ex. 1 fd. oats.....	43	43 $\frac{1}{4}$
May 4th.....	1 Man. flax.....	1 02 $\frac{1}{2}$	1 93
	Rej. flax.....	1 80	1 78
	Dried 3rd.....	94	96 $\frac{1}{4}$
	Dried 6.....	65	65 $\frac{1}{2}$
	No. 5.....	78 $\frac{1}{2}$	79
	2nd.....	1 01 $\frac{1}{4}$	1 02 $\frac{3}{4}$
May 6th.....	4th.....	90	90
	Dried 6.....	65 $\frac{1}{2}$	66
	Feed.....	60	60
	Dried 3rd.....	96	97 $\frac{1}{4}$
	Dried 6.....	65 $\frac{1}{2}$	66
	Tf. 6.....	58 $\frac{1}{2}$	59
	Tf. 2nd.....	91	91
	3rd.....	97 $\frac{3}{4}$	97 $\frac{3}{4}$
	4th.....	89 $\frac{1}{2}$	90
	5.....	78 $\frac{1}{2}$	79
	6.....	67	67
May 7th.....	Dried 3rd.....	95 $\frac{1}{2}$	96
	1 C.W. oats.....	49	47 $\frac{1}{2}$
	1st.....	1 03 $\frac{3}{4}$	1 04 $\frac{3}{4}$
	3rd.....	97 $\frac{1}{2}$	97 $\frac{3}{4}$
	4th.....	89	90
	5.....	79	78 $\frac{1}{2}$
	3 barley.....	69	69
	Dried 6.....	65	66
May 8th.....	Tf. 2 C.W. oats.....	38	40 $\frac{1}{2}$
	Dried 5.....	76 $\frac{1}{2}$	78

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APPENDIX—Continued.

Date.	Grade.	Duluth.	Ft. William and Pt. Arthur.
		Price.	Price.
May 9th.....	1 feed oats.....	43	44
	5.....	78	78½
	Feed wheat.....	60¼	60½
	3rd.....	97½	97½
	2nd.....	1 01¼	1 01¾
	3 C.W. oats.....	41¼	43
May 10th.....	Ex. 1 feed oats.....	44½	44½
	1st.....	1 03	1 04½
	2nd.....	1 00¾	1 01½
	3rd.....	97	97½
	4th.....	88½	89½
	5.....	77½	78½
	6.....	66	66½
	Feed wheat.....	60¼	60½
	Dried wheat.....	59¼	59½
	Heated 3rd.....	82	83
May 11th.....	Dried 3rd.....	95	96¼
	2nd.....	1 00½	1 01.
	3rd.....	97¼	97½
	4.....	88½	89
	5.....	77¼	78
	6.....	66	66½
	Feed wheat.....	60¼	60½
	3 C.W. oats.....	42	42½
	Dried 5.....	75¾	77½
	2nd.....	1 00½	1 01½
May 13th.....	3rd.....	97	97
	4.....	88	88½
	5.....	77	77½
	6.....	66	66
	Feed.....	60	60
	Tf. 4.....	81	81
	Heated 4.....	72½	75
	Tf. 5.....	71	71
	2 C.W. oats.....	48½	49
	Tf. 2nd.....	88¾	91
	Tf. 3rd.....	88¾	89
	Tf. 4.....	80½	81
	Tf. 5.....	70¾	71
	2nd.....	1 00½	1 01½
May 14th.....	3rd.....	96¾	97
	4.....	87½	88
	5.....	76½	76½
	6.....	65½	65½
	Feed.....	60	60
	Rej. ¼.....	77½	78
	Rej. ½.....	66½	67½
	1st.....	1 02	1 03½
	2nd.....	99¾	1 00½
	3rd.....	96	96½
May 15th.....	4th.....	87	87
	5.....	75½	75½
	6.....	65	65
	Feed.....	60	60
	2 C.W. oats.....	47¼	48
	2 feed oats.....	41½	42½
	1st.....	1 01½	1 03½
	2nd.....	99½	1 00½
	3rd.....	95½	95½
	4.....	86¼	86½
May 16th.....	5.....	74	74
	6.....	64½	64½
	Feed.....	59¼	59
	2nd.....	99½	1 00½
	3rd.....	95¾	96½
	4th.....	86½	86½
May 17.....	5.....	73¼	74½
	6.....	64½	64½

APPENDIX—Continued.

Date.	Grade.	Duluth.	Ft. William and Pt. Arthur.
		Price.	Price.
May 17th.....	Feed.....	59	59
	Tf. 6.....	55 $\frac{1}{2}$	55 $\frac{1}{2}$
	Dried 6.....	63	63 $\frac{1}{2}$
	1st.....	1 01 $\frac{1}{2}$	1 03 $\frac{3}{4}$
May 18th.....	2nd.....	99 $\frac{1}{2}$	1 00 $\frac{3}{4}$
	3rd.....	96	96 $\frac{1}{4}$
	4.....	86 $\frac{1}{4}$	86 $\frac{1}{2}$
	5.....	73 $\frac{1}{2}$	75
May 20th.....	6.....	64	64 $\frac{1}{4}$
	Feed.....	59	59
	1st.....	1 01 $\frac{1}{4}$	1 03 $\frac{1}{4}$
	2nd.....	99 $\frac{1}{4}$	1 00 $\frac{1}{4}$
May 21st.....	3rd.....	95 $\frac{3}{4}$	95 $\frac{1}{2}$
	4.....	85 $\frac{3}{4}$	86
	5.....	73	73
	6.....	63	63
May 22nd.....	2nd.....	99	1 00 $\frac{1}{4}$
	3rd.....	95 $\frac{3}{4}$	96
	4.....	86 $\frac{1}{4}$	86 $\frac{1}{4}$
	5.....	73 $\frac{1}{4}$	73 $\frac{1}{4}$
May 23rd.....	6.....	63 $\frac{1}{4}$	63 $\frac{1}{2}$
	Feed.....	57 $\frac{1}{2}$	57 $\frac{1}{2}$
	Dried feed.....	56	56 $\frac{1}{4}$
	1 feed oats.....	42 $\frac{3}{4}$	42 $\frac{3}{4}$
May 24th.....	3 C.W. oats.....	41	41
	2nd.....	1 00	1 01 $\frac{3}{4}$
	3rd.....	96 $\frac{3}{4}$	97 $\frac{1}{4}$
	4.....	87	87 $\frac{1}{4}$
May 25th.....	5.....	74	75
	6.....	64	64
	Feed.....	58	58
	Dried 4th.....	85 $\frac{1}{2}$	86
May 26th.....	2nd.....	1 00 $\frac{1}{4}$	1 01 $\frac{3}{4}$
	3rd.....	97	97
	4th.....	87 $\frac{3}{4}$	87 $\frac{3}{4}$
	5.....	75	75
May 27th.....	6.....	64	64
	Feed.....	58 $\frac{1}{2}$	58 $\frac{3}{4}$
	Dried 4.....	86 $\frac{1}{2}$	86 $\frac{3}{4}$
	2nd.....	1 00	1 01 $\frac{3}{4}$
May 28th.....	3rd.....	96 $\frac{3}{4}$	97
	4.....	87 $\frac{1}{2}$	87 $\frac{1}{2}$
	5.....	74 $\frac{3}{4}$	75
	6.....	64	64
May 29th.....	Feed.....	58 $\frac{1}{2}$	59
	2nd.....	1 00	1 01
	3rd.....	96 $\frac{1}{2}$	96 $\frac{1}{2}$
	4.....	87 $\frac{1}{4}$	87 $\frac{1}{4}$
May 30th.....	5.....	74 $\frac{3}{4}$	74 $\frac{3}{4}$
	6.....	63 $\frac{3}{4}$	63 $\frac{3}{4}$
	Feed.....	58	59
	Dried 5.....	73 $\frac{1}{2}$	73 $\frac{1}{2}$
May 31st.....	Dried 4.....	86	86 $\frac{1}{4}$
	2nd.....	1 00	1 01 $\frac{1}{4}$
	3rd.....	96 $\frac{1}{2}$	96 $\frac{3}{4}$
	4.....	87	87
June 1st.....	5.....	74 $\frac{1}{2}$	74 $\frac{1}{4}$
	6.....	63 $\frac{1}{2}$	63 $\frac{1}{2}$
	Feed.....	58	59
	Tf. 6.....	55	55
June 2nd.....	Dried feed.....	56 $\frac{1}{2}$	58
	2nd.....	99 $\frac{1}{2}$	1 01
	3rd.....	96	96 $\frac{1}{2}$
	4th.....	86 $\frac{1}{2}$	86 $\frac{1}{2}$
June 3rd.....	5.....	74	74
	6.....	63	63
	Feed.....	57 $\frac{1}{2}$	57 $\frac{1}{2}$
	Feed.....	57 $\frac{1}{2}$	57 $\frac{1}{2}$

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APPENDIX—Concluded.

Date.	Grade.	Duluth.	Ft. William and Pt. Arthur.
		Price.	Price.
May 30th.....	2nd.....	99 $\frac{3}{4}$	1 01 $\frac{1}{2}$
	3rd.....	96 $\frac{1}{2}$	96 $\frac{3}{4}$
	4th.....	86	86 $\frac{1}{2}$
	5.....	73 $\frac{1}{2}$	73 $\frac{1}{2}$
	6.....	62 $\frac{1}{2}$	62 $\frac{1}{2}$
	Feed.....	57	59
May 31st.....	3rd.....	96 $\frac{1}{4}$	96 $\frac{3}{4}$
June 1st.....	2nd.....	99 $\frac{1}{4}$	1 00 $\frac{3}{4}$
	3rd.....	95 $\frac{3}{4}$	96 $\frac{1}{2}$
	4.....	85	85
	5.....	71	71
	6.....	60	60 $\frac{1}{2}$
	Feed.....	55	56
June 3rd.....	2nd.....	1 00 $\frac{1}{4}$	1 01 $\frac{3}{4}$
	3rd.....	96	97 $\frac{1}{2}$
	4.....	85 $\frac{1}{2}$	86
	5.....	71 $\frac{1}{2}$	71 $\frac{1}{2}$
	6.....	60 $\frac{1}{2}$	61 $\frac{1}{2}$
	Feed.....	55	56
June 4th.....	1 fd. oats.....	41 $\frac{1}{2}$	42
	1 fd. oats.....	41 $\frac{1}{2}$	42 $\frac{1}{2}$
	2nd.....	1 00 $\frac{1}{2}$	1 01 $\frac{3}{4}$
	6.....	60 $\frac{1}{2}$	61 $\frac{1}{2}$
	Feed wheat.....	55	56
June 5th.....	3rd.....	97	97 $\frac{1}{2}$
June 8th.....	3rd.....	98	99
	4.....	87 $\frac{1}{2}$	88
	5.....	73	73 $\frac{3}{4}$
	6.....	62	63
	Feed.....	56	58
June 10th.....	2nd.....	1 02	1 03 $\frac{3}{4}$
	3rd.....	99	99 $\frac{1}{2}$
	4.....	87 $\frac{1}{2}$	88 $\frac{1}{2}$
	5.....	73	74 $\frac{1}{2}$
	6.....	62 $\frac{1}{2}$	63 $\frac{3}{4}$
	Feed.....	56 $\frac{1}{2}$	58 $\frac{1}{2}$
June 11th.....	3rd.....	99	99 $\frac{3}{4}$
	6.....	63	64
June 12th.....	Feed wheat.....	57	58 $\frac{1}{2}$
June 14th.....	2nd.....	1 02 $\frac{1}{4}$	1 04
	3 C. W. oats.....	42	42 $\frac{3}{4}$
	No. 5.....	74	75
June 15th.....	3rd rej. a/c seeds.....	86	92 $\frac{1}{4}$
	4th rej. a/c seeds.....	75	81
June 17th.....	2nd.....	1 02	1 04 $\frac{1}{2}$
	3rd.....	98 $\frac{3}{4}$	1 01
June 19th.....	2nd.....	1 01 $\frac{3}{4}$	1 04 $\frac{1}{2}$
June 20th.....	Feed wheat.....	55 $\frac{3}{4}$	56 $\frac{1}{2}$
June 21st.....	6.....	63 $\frac{1}{2}$	64 $\frac{1}{2}$
June 22nd.....	Tf. 5.....	63 $\frac{1}{2}$	64 $\frac{1}{2}$
June 26th.....	1 fd. oats.....	41 $\frac{1}{2}$	43
June 27th.....	No. 5.....	75	76 $\frac{1}{2}$
	Feed wheat.....	54	56 $\frac{1}{4}$
July 5th.....	No. 5.....	70	73
July 11th.....	3rd.....	97	1 00
	Dried 3rd.....	95	99
July 22nd.....	Dried 1st.....	95	99
	Dried 2nd.....	95	98
	Dried 3rd.....	95	97
	No. 6.....	54	58 $\frac{1}{2}$
July 26th.....	3rd.....	95 $\frac{3}{4}$	99
	2nd.....	99 $\frac{1}{2}$	1 04
July 27th.....	4th.....	81	84

Date Due

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